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THE UNGEARED MIND.

From painting "Don Quixote" by Eduard Grutzner.
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THE UNGEARED MIND

BY

ROBERT HOWLAND CHASE, A.M., M.D.

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ILLUSTRATED

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IN AFFECTIONATE REMEMBRANCE
TO THE NUMEROUS BODY OF MY
PUPILS WHOM IT WAS A PLEASURE
"TO TEACH THE YOUNG IDEA HOW
TO SHOOT."

59102

PREFACE.

BEFORE "The Ungeared Mind" saw the light of day, when its germinal elements were floating in a free and unorganized form in the current of the writer's thoughts, it occurred to him to gather together the material which comprises the observations and experiences of a lifetime into book form. The suggestion implied, for the reward of labor, a certain modicum of utility that may be helpful to others. He has undertaken the task, assuming it may not prove too ambitious for his short-nib pen, or too prosaic to be of interest to the general reader.

The book forms a collection of medical writings semi-scientific in character, shorn in a large degree of technical terms and phrases. The viewpoint of the general reader who has a taste for popular science is carefully kept in mind. It is one of the provinces of the work to point out the pitfalls in the common highways of life and to show how to avoid many errors which unheeded lead to ill-health.

Sections XIV. and XV. are studies made many years ago which appeared originally in the Journal of Nervous and Mental Diseases and the American Journal of Insanity. For the present purpose they

have been revised and rewritten to satisfy a wider and riper experience, and are brought into conformity with up-to-date teachings. The author is indebted for a few excerpts from his Mental Medicine and Nursing. He takes this occasion to express his obligation to Dr. C. H. Town, his former instructor in psychology, for many borrowed ideas, and to Dr. A. C. Buckley for assistance in proof reading and for many valued suggestions.

R. H. C.

CONTENTS.

CHAPTER PAGE

I. SOME QUESTIONS RELATING TO THE INSANE 3

Brief Historical Account of the Care of the Insane — Religion as a Cause of Insanity — Race, Sex, and Country Life as Causes of Insanity — Three Popular Fallacies: Concerning the Moon; The Insane Unable to Shed Tears; A Return to Reason Just Preceding Death.

II. THE IMAGINATION, ITS BENEFICIAL AND BANEFUL SIDES 29

A Plea for the Cultivation of the Imagination — Some of its Chief Characteristics — Its Place in Science and its Beneficial Influence on Mankind — Some of its Striking Peculiarities — Day-dreaming or Castle-building.

III. AN ALIENIST'S TABLETALK 47

Insomnia — Endurance to Cold and Hunger — Willpower — Civil Condition — Mental Instability — Fast Living — Physical Stigmata — Borderland State — Education and Insanity — Questionable Value of Travel — Power to Weep — Heredity — Orientation — Exercise — Habits — Predisposing Occupation — Celibacy — Illusions — Non-restraint — Scale of Intelligence — Insanity in Men and Women — Favorable Sign — Yoked to Plow — Insanity as to Age — The Paranoiac.

IV. HOW TO AVOID INSANITY THROUGH INHERITANCE 69

Well-known Truths Respecting Heredity — Degeneration or Morbid Heredity — Diagnostic Value of Hereditary Tendency — Insanity of Relatives more Remote than Parents, Uncles, Aunts, Brothers, Sisters, and First Cousins — Intemperance as a Productive Agent — Consanguineous Marriages — Treatment of Heredity in Insanity.

V. CARE OF THE MIND 83

General Remarks on Brain Structure and its Relation to Mind — Analogy to the Telephone System — Difference between Man and the Brute — The Influence of Environment and Home Conditions — Work and Recreation — Insanity in the Uneducated — Beneficial Influence of Education — Judicious Training of the Child.

CHAPTER PAGE

VI. SKETCHES 113

Relating to the Following Topics: Age — Adolescence — Exorcism — Emotions — Nerves — Risks of Asylum Life — Exercise — St. Suaire — Savants — Lord Chesterfield — Short Life — The Insane in Ancient Egypt — Dreaming and Nightmare — Guilty Conscience — Fortunes of War — Mental Hygiene — Health-lift — Seventy-year Clocks — Tuberculosis.

VII. TO MAKE A VALID WILL 135

The Question of Testamentary Capacity — Judges' Decisions Often Arbitrary — The Unjust Decisions of Old English Courts Respecting Wills Should Not Enter Into Our System of Jurisprudence — Principles Governing the Disposition of Property — A Will the Product of a Delusion — Example — A Parent Should be Prohibited from Disinheriting his Own Child Except for Ample Reasons — Every Will Case Should be Decided on its own Merits and not by an Antiquated Rule of Law.

VIII. STRANGE CASE OF SILAS PRONGE 151

A Descriptive Case of "Double Personality" — The Influence of Hypnotism in this Case — This Peculiar Phenomenon Explained by "Dissociation of Consciousness."

IX. EX LIBRIS 159

The Undue Ratio of Insanity — Results of Inebriety — Bodily Movements — Organic Sensations — Suggestibility — Insane Disguised as Beggars — Irritability — Puberty — Mood — Disposition — Involuntary Action — Insanity on the Increase — Definitions of Insanity — Temperament — Diathesis — Latency — Insane Writing — Photisms — Phonisms—Mental Tests—Transformation of the Ego—Eccentricity—Inhibiting Obsessions and Phobias.

X. AUTISM OR AUTISTIC THINKING 183

Where Phantasy has Full Sway — Appears both Among the Sane and Insane — Governed only by Pleasure Motive in its Wish-inspiring Tendencies — Examples: "The Lawless Heart" — Is either Conscious or Unconscious — Symbolism a Form of it — Autistic Thinking in Normal Persons Kept within Limits — Not with the Insane — Often the Basis of the Delusions of the Insane.

XI. ABULIA OR WEAKENED POWER TO WILL 193

This Condition finds Expression in Many Ways — Systematized Abulia Defined — Examples — Napoleon's Control of Sleep — General Abulia Applies Both to Action and Thought — Importance of Voluntary Attention in Mental Life — Striking Examples — This Mental Phase in Mild Form in Normal Health.

CHAPTER PAGE

XII. At the Deviate Club 207

Atavism in the Footfalls of a Grandmother — Smallwood's Sallies of Wit — Mysticism Reverberating through Footsteps — Curious Ways Spent Emotions Yield to Humor — Example — Deviates Defined — Tricks of the Imagination — Psychology of Quarrels — Contagion of Insanity — Bounty of Happiness — Subjects for Discussion and Remark.

XIII. From the Note-book of an Alienist 225

Early Signs of Paresis — Appetite — Illusions — Old Age — Religion — Unjust Confinement — Favorable Signs — Early and Late Treatment — Mens Sana in Corpore Sano — Injury to Head — Impairment to Sleep — Greetings — Mortality Ratio — Gyrater — Fresh Air — Rhythmic Sounds.

XIV. Delusions of the Insane 245

Delusions of the Insane Based on the Vital Feelings — Not on Disturbance of the Intellect — Importance of the Feelings in Mental Life — Instinct of Self-preservation — How Delusions are Divided — Chiefly Based on a Sense of Adequacy and of Inadequacy — Limited Number Due to Morbid Change of the Personality — Insane Reason Well on All Subjects not Related to the Delusion — Genuine Delusions are Limited — False Ideas Growing out of Them — Examples.

XV. Some Aspects of the Feelings 259

Feeling the Chief Component of Mind — Wide Sphere the Feelings hold in Mental Medicine Reflected in Treatment — Different Forms of Laughter Explained — The Incongruous Relation Often Seen Between the Idea and the Emotion in the Insane — Example — Ruling Passion the Deepest and Most Central Current in Human Nature — Development and Training of the Affective Side of the Young most Essential — Tendency of all Emotion by the Lapse of Time to Lose its Feeling Tone a Natural One — How Shown in Love, Fear, Anger, Grief, and Joy.

XVI. Viewpoint of a Psychiatrist 273

Advancement in Treatment — Prognosis — Obsessions — Vital Principle of Happiness — Overtaxed Brain — Laughter and Tears — Train of Thought of the Sane and Insane — Psychotherapeutic Methods — Overtaxing the Mind — Alienation — Insanity in War Times — Mental Training; Good Signs — Exalted Mental Traits — Fear — Valetudinarians — Physical Causes — Paretic Speech — Habit of Self-control.

CHAPTER PAGE

XVII. LEGAL ASPECTS OF MENTAL DEFICIENCY 293

Three Relations in which Mental Defect Becomes a Subject of Inquiry in the Courts — Capacity to Perform Certain Acts — The Disposal of Property — Contracts — Gifts — Deeds or Wills — Degree of Unsoundness that may Invalidate a Contract — Imbecility — Partial Insanity — Lucid Intervals — Intoxication — Capacity to make a Valid Will — Rules of Law laid down by Eminent Jurists.

XVIII. INSANITY, A GENERAL SURVEY 313

Great Prevalence of Insanity Today and its Apparent Marked Increase in Late Years — How one can Guage the Mental Status in Obscure Cases — Causes, Mental and Physical — Some of the most Interesting Forms of Mental Breakdown Described — Psychasthenia — General Paresis — Dementia Præcox — Periodic Insanity — Paranoia, etc. — General Plan of Treatment as Pursued in Late Years.

XIX. A STUDY OF THE DYING STATE 333

Strictly speaking does not belong to the Mental Series; Has a Common Interest for All, however — Sentimentally, Natural Death Comes to All Alike, irrespective of Social or Religious Status — The "Wind is Tempered to the Shorn Lamb" — In the Dying, Extreme Terror, Ecstasy of Joy and Painful Remorse have been Witnessed — Sternomastoid Breathing, a Sign of Death, Described and its Utility given.

GLOSSARY 339

INDEX 345

ILLUSTRATIONS.

The ungeared mind ..... *Frontispiece*

FACING PAGE

Pinel striking the chains from the insane, 1793 56

Torture of mind 126

Some types of insanity 174

An insane woman burned at the stake for witchcraft, Scotland, 1773 232

Hogarth's bedlam, 1733 282

I.

SOME QUESTIONS RELATING TO THE INSANE.

"I see them on their winding way,
About their ranks the moonbeams play".

HEBER.

"We figure to ourselves
The thing we like, and then we build it up
As chance will have it, on the rock or sand;
For thought is tired of wanderings o'er the world,
And homebound Fancy runs her bark ashore".

SIR HENRY TAYLOR.

SOME QUESTIONS RELATING TO THE INSANE.

Brief Historical Account of the Care of the Insane.

LET us, at the outstart, revert briefly to the history of the care of the insane, which in the past forms for the most part so painful a story of superstition and inhumanity. This history, viewed as a whole, is divided by writers into four separate epochs.

The first period extends from the beginning of recorded time down to Hippocrates, 460 B. C. It was for the most part an age devoid of enlightenment, also entirely divorced from any medical supervision, in which insanity was believed to emanate from the gods, and the insane were inspired instruments under priestcraft.

The second period extends from Hippocrates, the father of medicine, to the decline of the Roman era. It was the classic medical epoch, when there was an attempt to treat insanity as a disease. This passed through three distinctly brilliant periods: the Hippocratic, the Alexandrian and the Græco-Roman civilizations.

The third epoch extends from the beginning of the Christian era to the end of the eighteenth century. It is called the "period of transition", which

was marked by the belief that the insane were possessed by evil spirits.

The fourth or modern epoch began with Pinel, 1793, and extends to the present day. It is the enlightened and scientific era, which has developed into the modern care and treatment, both rational and humane. Before the dawn of Christianity there was no provision for the sick and afflicted under hospital care, and the account of the good Samaritan, in the Scriptures, seems to be the first recital of charitable ministration to the sick. At the end of the fourth century, Fabiola, a benevolent Roman woman, founded an institution to receive the sick and poor.

The first hospital for the insane was established at Jerusalem, A. D. 491. A gap then occurs down to the twelfth century, when a retreat for the insane, called the "House of Grace," was opened at Bagdad. During the Middle Ages many insane persons, who were not permitted to be at large, were confined in monasteries. As the superstitious belief of the times attributed, as stated above, their aberrations to demoniacal possession, these poor sufferers were subjected to much cruelty, under the notion that it was necessary to exorcise, or drive out by harshness, the evil spirits or demons that had taken possession of them. The barbarities that were inflicted upon these pitiable creatures by the ignorance and bigotry of the times are almost too revolting to recount.

We can well regard the present age as greatly favored in having escaped the hardships of those evil

days. The oldest hospital for the insane in England, as well as in all Europe, is the Bethlehem Hospital, in London. This institution was originally a priory, but in 1547, in the reign of Henry VIII., it was converted into an asylum for the insane. In the seventeenth century, through a demand of the better classes for more comfort and privacy than were given in institutions supported by public charity, private asylums came into existence. Shortly before the year 1800 a great reform in the care of the insane was instituted abroad by movements that began nearly simultaneously in France and England. In the one case it was led by Dr. Philip Pinel, the great French physician, at the time of the French Revolution, who gained for himself lasting distinction by striking the chains from the insane at the two large Paris hospitals, the Salpêtrière and the Bicêtre.

Dr. Pinel, in his L'Aliénation Mentale," referring to restraint, makes these significant remarks:

"J'ai examine avec un soin scrupuleux les effets que produisoit sur les aliénés l'usage des chaînes de fer et ensuite les résultats comparatifs de leur abolition, et je ne puis plus former des doutes en faveur d'une répression plus sage et plus modérée. Les mêmes aliénés qui, réduits aux chaînes pendant une longue suite d'années, étoient restés dans un état constant de fureur, se promenoient ensuite tranquillement avec un simple gilet de force et s'entretenoient avec tout le monde, tandis qu'auparavant on ne pouvoit en approcher sans le plus grand danger; plus de cris tumultueux, plus de

vociférations menacantes; leur etat d'effervescence cessa par degrés; ils sollicitoient eux-mêmes l'application du gilet de force, et tout rentra dans l'ordre."

["I have examined with great care the effects of the use of iron chains upon the insane, and the comparative results following their abolition, and I have no further doubts in favor of a wiser and more moderate means of repression. The same patients who, reduced to chains for a long series of years, had remained in a state of constant frenzy, walk about afterwards quietly, with a simple 'gilet de force' and converse with everyone, although previously one could not approach them without the greatest danger; no more tumultuous cries and threatening vociferations; their state of excitement ceased by degrees; they solicited the application of the 'gilet de force' themselves, and all returned to order."]

We to-day carry the principle of non-restraint still further; instead of "l'application du gilet de force" we believe in total abolition of all repression.

About the time of the French reform public sentiment had become aroused in England by exposure of cruelty and neglect in her charitable institutions. William Tuke, the large-hearted Quaker, led an independent movement, which resulted in the founding of the York Retreat. This reform took wide and deep root, and many important measures for the benefit of this dependent class, both in legislation and in practice, were established.

In America, as early as 1709, the Society of Friends, at a monthly meeting held in Philadelphia, took steps towards the founding of a hospital for the sick and insane. Subsequently this "concern" bore fruit in the founding of the Pennsylvania Hospital, in 1751, which set aside a portion of the building for the treatment of persons "distempered in mind and deprived of their rational faculties." This philanthropic movement of Friends, in 1709, antedated by nearly a century the great undertaking for the improved care of the insane by Pinel and Tuke, which marked the dawn of a better day for them in England and France. Long after this period, however, when an intolerant spirit held sway, the insane were hunted into jails and almshouses as common malefactors and outcasts, where the abhorrent practices heaped upon them stand as a blot upon the civilization of the first half of the past century.

Even were it desirable to essay the task, it is not my purpose to attempt to portray the abuses and the misery of those days, which, happily, have passed forever, so graphicaly told by Dorothy Dix and others.

The new era is a chapter of benevolent labor in the cause of humanity that has few equals in the annals of mankind.

Religion as a Cause of Insanity.

If one who is unfamiliar with the practical side of insanity will take the trouble to examine the

published tables of causes he may be surprised to see that religion, man's greatest possession, finds a not inconspicuous place in the list.

However natural it may be for a devout person, who derives peace and solace from the sufficiency of the Gospel, to discredit the claim that religion is ever a cause of mental failure, or for him who teaches that religious observances are the chief duty of life, to disbelieve that too much zeal can subvert the intellect, yet it is nevertheless true, under certain circumstances, that insanity may be occasioned through the agency of religion. It must indeed be conceded that its relation to insanity is a delicate question, and has ever been held a difficult one to solve. There are sources of error to be avoided, and perplexities to be carefuly analyzed and studied.

In ascribing the cause of the disease in any particular instance, one is prone, it must be confessed, to assign that which may be such only in appearance, and judge accordingly. This error of verisimility is a very common one. In this manner many cases, it is to be feared, have been hastily attributed to a religious origin merely because the conduct or conversation of the patient has exhibited these traits. Especially is it apt to happen in the service of public institutions, where often a correct history of the patient cannot be satisfactorily traced. Again, one can readily understand how an insane person may develop morbid ideas respecting religion, which he might do as well upon any other topic, and still be insane from a cause totally at variance

with it. We see, then, that in one case religion may be a cause, in another a result. This distinction should be observed and not confounded.

When we consider the place that religion has held in the history of mankind it will be generally admitted that no other interest whatever has so great prepotency on the human mind. As there is no single passion which may not be excited to an excess that may induce mental degeneration, so we may readily believe that religion, which influences the feelings of man so deeply, may at times give rise to this imputation.

We often find in susceptible subjects that the mental constitution is so unstable that slight provocation is sufficient to upset its equipoise. If the cause be uncommon or weighty, such as involves a change of religious belief, the more certain and durable may be the wreckage. A concrete case may make it clearer. A single young woman of insane heredity, who was regular in her devotions to her own church, was thrown into the company of Swedenborgians. Through importunity, she became partly persuaded to change her faith. She was in consequence brought into a condition of perplexity and doubt. While in this disquietude of mind she attempted to partake of the sacrament at her own church. There were many communicants that day who had preceded her to the altar. When the chalice reached her she found, upon raising it to her lips, that not a single drop of the wine was left for her. Taking this symbol of the empty cup

as a token that she was rejected of God, she became excessively disconcerted and confused. She believed fully that her soul was lost, and a furious paroxysm of maniacal excitement ensued.

There are also minds whose constitutional temperament is so liable to distort the truth that it need be no surprise that false notions about religion should be the groundwork of their aberrations. Not that Christianity itself ever produces this result, but rather, let us say, a perversion of the precepts and principles of religion is at fault in these special instances. Furthermore, because a mental patient fancies that he is Deity, or forms some other vain conception, it does not at all follow that these ideas arise through any previous teachings of a spiritual nature. They should be regarded as delusions pure and simple, taking origin in the morbid operations of the mind. The exercise of any vital interest in the life of the subject would be inclined equally to find vent in similar distortion. In like manner the melancholic fancies of the patient, who imagines that for him there is no redemption, are not derived from his religious training. They arise, on the contrary, spontaneously from a disordered imagination, and from it alone.

A young woman of delicate health, prone to mental instability, was induced to believe by overzealous friends that she was not following the true light, although always attentive to her religious duties. Under this ill-timed pressure she lost her

spirits, and fell into gloomy despair. Here was an unstable constitution, predisposed to aberration upon any strong emotion. It is not that there is danger with the young by inculcating the principles of piety and morality. Indeed, no education can be regarded as complete or wholesome without it. It is not this, by any means, which is at fault, but the injudicious abuse of it upon immature and yielding minds.

The criticism is sometimes made that in a country like America, where the masses of the people are more or less under the constraining power of religion, and where religious liberty and tolerance abound, weak minds may be thrown into a state of morbid doubt, or, wrought upon by too earnest proselytising, may be unduly perturbed. It is possible that to some extent this active exploiting of controversial doctrines may have been, in susceptible subjects, a predisposing cause of mental disease. But let me caution again that it is necessary to examine cause and effect closely. In communities where religion is duly respected and its tenets strictly followed there will be cases, as pointed out before, whose mental malady, not originating in religion, will be complicated with ideas and feelings of a religious character. It is said that in countries where but little sense of religion exists, such as occurred in France during the reign of extreme atheism, insane persons reflected in their wandering few or no religious impressions. This view is held generally by writers on insanity.

The Nature of Insanity Revealed by the Close Connection between Sane and Insane Phases of Mind.

The popular idea that the insane, in a peculiar sense, form a class totally by themselves grows out of the old conception, born in superstition, that they are possessed by an evil or demoniacal spirit. This belief, as you know, has long ago been exploded, since the scientific view concerning insanity is universally accepted. Only in a very general sense can we speak of the insane as a class by themselves. Yet there is still a tinge of the old mystic idea remaining, which is frequently seen in the general bearing of the public towards them.

In a curious way this attitude of mind is made manifest. For example, when the actions of our sane neighbor are under review we study narrowly the spirit or motive of his conduct, and judge accordingly, holding him to strict account for his acts. Now, in the case of our insane neighbor the point of view is changed and we proceed on very different lines. If he show traits of selfishness, envy, malice —in short, any of the malevolent passions of human nature—we very charitably attribute it all to his insanity. In the same way, too, is our attitude towards the ability or talent he may show; it all goes to the credit of his mental twist. We forget that, independent of his mental disease, he is cast in the same mold as the rest of us, and that back of the insanity there are the same imperfections or traits of character and shades of disposition that are to be found in the other members of the human

family, no more and no less. This tendency seems to come from that sympathetic feeling which is displayed universally for the weak, a sort of fellow feeling for the under dog; for just as we guard the memory of the dead, so we are inclined to refer all the shortcomings of the insane to their disease.

We learn to understand by studying our brother who stands apart that the insane mind is not, after all, so different from the sane. The peculiarities which constitute insanity are chiefly made up of the traits and tendencies of normal human nature, which may be blighted in their growth or may have gone to seed. Many, if not all of the ideas, feelings, and actions which characterize the insane may be traced back through borderland conditions into promptings and tendencies which have their small and insignificant beginnings even in the sane mind. Insanity, I desire to emphasize, is not something foreign or apart from human nature. In both the sane and insane we have to do with the same brain and nervous system in its essential activities, but the basis of the trouble lies only in the fact that the mental mechanisms are defective in some of their functions.

For a number of years past the writer has been curious to study this relationship between the normal and the defective mind—to trace the peculiarities of morbid mentality back to the soil where they take their origin in the sane mind. We cannot go fully into this interesting subject, but will

state the general fact, which has been done, and give a few examples to make the meaning clear.

1. Normal persons have at times the impulse to repeat trivial actions which have just been performed, under the fear that they have been done imperfectly. Under this "spell," who has not attempted to wind his watch the second time? To go back again to try the lock of a door at bedtime, or to test the turning off of the light. This feeling of doubt, with the insane, develops into a chronic state of morbid doubt and indecision. It is a form of diseased impulse termed "abulia," well known to psychiatrists. In like manner the impulsions sometimes felt by normal individuals, prompting them to jump down from great heights, to call out in church, or to let some fragile article of value drop to the floor, find expression, in the insane, in acts of greater impulsion, even to active feelings leading to suicide and homicide.

2. As a rule, people generally do a great proportion of their thinking in words, in a sort of internal speech. The actual articulation of the words is, however, inhibited, although in many persons of the motor type there is at times a slight movement of the lips and vocal cords, and some even occasionally, when deeply moved, speak their thoughts involuntarily. In many of the insane this inhibition is so weak that most of their thoughts are expressed aloud.

3. There is a tendency in all of us, more or less universal, when listening to a monotonous or

oft-repeated sound to set words to it. The names of some of our well-known insects and birds bear witness to this tendency, such as the katydid, whip-poor-will, and bobolink. This tendency finds its exaggeration in the insane, who often as a result believe that words come to them with all kinds of sounds, such as the tick of a clock, creak of a shoe, chirp of a bird, or the whistle of the wind. All sounds are laden with messages for them.

Examples such as these, which illustrate our thesis, are so numerous, and at the same time pertinent, that it is difficult to make choice. A few more, however, may suffice.

4. If a sane person, albeit a little timid, is walking along a lonely road at night, and is possessed by a fear of meeting a highwayman, every unrecognized object dimly seen is apt to take the form of a man, every uninterpreted sound is fancied to be the noise of his footfall or the rustle of his approach. The idea uppermost in his mind, due to fear, is so powerful that it influences his perception, even more markedly than the sensations experienced. This form of illusion is a common one, and is due to "preperception." A sane person is able to reassure himself and correct the illusion. An insane man, whose mind is possessed by some persistent morbid idea, is in an exactly similar position. He experiences illusions by modification of sensations by already existing ideas. Unlike the sane man, he is unable to judge of their true character, and does not correct them.

5. Just as the very rigid practice of conscientiousness sometimes deepens into a morbid scrupulousness of painful exaction in the insane, so a natural daintiness and habit of cleanliness may develop in a disordered mind into an insane fear and dread of dirt, which leads to an endless search for contamination of the person, and an exhaustive washing and rewashing of the hands and other parts of the body.

6. And, finally, there may be cited one more instance of this relationship. The belief that there are persons who are predestined to eternal torment, which some individuals can hold with equanimity in their normal state, often results in untold torments when these individuals lose their mental equilibrium. The terrorizing idea becomes dominant. They apply it to themselves and are filled with the hopeless certainty of their own eternal damnation.

Race, Sex, and Country Life as Causes of Insanity.

In the etiology or causes of insanity, race, sex, and occupation play not an unimportant part. Insanity is a disorder of civilization, being found extensively among all civilized nations, and being almost entirely absent in uncivilized or semi-civilized races. Before the abolition of slavery in America insanity was far less common among the negroes of the South. Since then there has been a gradual increase, decade by decade, until it is proportionately as common in the colored as in the white

race. This change is believed to be due to the increased mental stress associated with the responsibility of gaining a livelihood, the freer opportunity to indulge in alcoholic and other excesses, and the larger degree of liability to general paresis. Insanity is very equally distributed in the several important nations, occurring in the large cities and more densely crowded sections in the proportion of about 1 insane person to 350 of the population; and in the rural and sparsely settled regions, in the ratio of 1 to 500.

In the question of sex the same proportion holds good throughout the civilized world. The number is almost equally divided between the sexes, with a slight preponderance in the male sex. Aside from heredity, intemperance and excesses stand at the head of the list of causes for insanity in men, which are offset by domestic trouble, ill health, and disappointed affections in women.

It is not unusual to hear it said that life in the country, which, as we know, is notoriously healthful, and better fitted than most any other to promote both physical and mental vigor, tends more strongly to bring about insanity than city life. This is undoubtedly a grave mistake. It would seem that this false deduction has been based on the figures of asylum reports, which may often show farmers and their wives the most numerous class among the patients. This discrepancy is due to the fact, as Dr. Kirkbride long ago pointed out, that, compared with persons engaged in other pur-

suits, farmers are often the most numerous class in a community. Hence, the disproportionate number at times found in these reports. In a computation of this kind we see how misleading a question may become unless all factors entering into it receive proper attention.

On the other hand, a life in the country is not, of course, a safeguard against insanity any more than it is a defense against disease in general. The country has its peculiar conditions which predispose its members to liability of mental impairment. Among these may be mentioned excessive labor, with imprudent exposure, loneliness with its monotony, and sometimes poor and unwholesome food.

Three Popular Fallacies.

There are three popular fallacies concerning the insane which have wide acceptance, and have held sway for many years, even among intelligent people. The fallacies to which we allude are: (1) that the moon, in some mysterious way, has a specific potency in causing insanity, and that its influence in like manner produces a baneful effect on the insane; (2) that the insane are unable to shed tears; and (3) that an insane person usually regains his mind just before death.

1. Concerning the Moon.

Respecting the first fallacy—the wonderful power of the moon—it may be remarked that it is of great antiquity. Greek and Roman authors men-

tion it, and it is said that both Hippocrates and Galen refer to it as causing madness and epilepsy. Giraldus Cambrensis, an old Latin writer, reports the observation of an expositor of Matthew, chapter iv, 24, that the sick are here called lunatics, not because their insanity comes from the moon, but because the devil, who causes insanity, avails himself of the phases of the moon in order that he may disgrace the creature by drawing him into the act of blaspheming the Creator.

Esquirol, a prominent French alienist at the beginning of the last century, states that the Germans and the Italians believed in lunar influence as a cause of mental disorder, and he refers to the use of the word lunatic by the English as an evidence of their holding the same belief. The employment of the words derived from the term "luna" (the moon) as applied to the insane is sufficiently common in English literature to indicate the general belief in this ancient doctrine. It is told of sailors, who are proverbially superstitious, that they have been cautious, from time out of mind, about the harmful influence of the moon—the superlative danger of sleeping on deck in moonshine, unless under the shadow of the sail. Other folks, too, in plenty, have feared being moonstruck.

There was a deep interest aroused in the subject by Esquirol and his contemporaries, who brought the superstition into doubt by their observations and experiments. Among these writers were Allen, Laycock, and Thurnam, of England, and Wood-

ward and Hopkins in America. Since that day no writer of prominence has attempted to advocate that there is any relationship between the moon and insanity, although we continue to perpetuate the fallacy by the use of the word lunacy and its numerous derivatives. It is curious to note that Dr. Rush, sometimes called the father of American psychiatry, believed, as set forth in his work on the mind, that there was an equal amount of truth on the side of those who admitted and those who denied the influence of the moon, and reconciled the two by supposing a kind of sixth sense to be possessed by the insane and not by persons in health. This increased sensibility enables them, he said, to perceive heat and cold, moisture and dryness, the density and rarity of the air as those in health are unable to do. According to him the full moon rarefies the air, which, being felt keenly by the insane, causes in them great agitation. It seems scarcely necessary to say that this absurd theory is believed by no one today, if it ever had support.

Nevertheless, it is well known that the insane are more wakeful on bright moonlight nights, and that in institutions for the insane the noise and excitement are at maximum in the full of the moon. This is not occasioned by some occult influence of the moon, as formerly believed, but is due solely to the effect of the light upon them. It is a well-attested fact that light in itself tends to excite many of the insane at night, and darkness to calm

them. Dr. Urquhart, superintendent of the Murray Asylum, Scotland, in speaking of the effects of the moon, significantly says: "The rooms for disturbed patients were lighted from the southeast, and shutters had not been fitted to the windows. When the omission was remedied, the change was to all apparent, and the influence of the moon was at once abolished."

2. The Insane Unable to Shed Tears.

Let us turn to the second fallacy, viz., that the insane are unable to shed tears.

When all of the insane as a class are considered it will undoubtedly be found that it is untrue that they do not on occasions shed tears. For a long time I have given this matter attention, and I know from frequent observations that many insane persons, taken from nearly every walk of insanity, do indeed weep at times, and in weeping shed real and unmistakable tears. There are, however, two types of the insane who rarely, if at all, experience an outburst of tears. There is, therefore, just enough truth in the assertion, and just enough credulity at large, to give color to this saying, and to create a belief in it by people who know little about the insane and their habits.

The question involves, to a certain extent, the psychology of the emotions. When fully discussed, it is a broad subject, and could well form the theme of an entire paper. But I shall endeavor to confine myself to the statement of a few general

principles and come to the point as quickly as possible.

We sometimes see among our friends and acquaintances instances of overwhelming grief, where the grief-stricken one goes abstractedly about dry-eyed and unnaturally calm. You have witnessed the anxiety of relatives, who trembled for such an one's safety, lest she should go out of her mind. At these times you have heard the anxious expression, "Poor girl, if she could only cry, what a relief it would be." I have called your attention to this example of dry-eyed grief in a sane person to emphasize the fact that the situation is entirely unlike that which occurs when an insane person cannot give vent to tears. The explanation of the case just cited is that a mental shock, more or less severe, has been experienced by the force or suddenness of the blow. The brain has been stunned, and consequently does not react as it normally should. If the shock be great there is good cause for apprehension.

In ordinary sorrow the flood of grief reacts upon the physical part of one's nature, and is reflected in the familiar manner, of which reaction, tears form an important and conspicuous part. Should the grief be felt too intensely, this healthy response does not take place, and Nature fails to be relieved. This reaction has its counterpart in some of the other emotions. For instance, every one is familiar with the effects of mental shock caused by sudden terrorizing fear—how the victim

is paralyzed into silence and inaction—how he seems, as we say, glued to the spot. This state of affairs is different from that which obtains in the case of an insane person. We should look elsewhere for the explanation when we would account for the absence of tears in him. As said already, it is not all of the insane who are unable to shed tears, and those who do not may be divided into two distinct classes.

The first class, and by far the largest, is the chronic degenerative class, whose emotional life, as well as the intellectual life, has been in a large degree sapped. The feelings, the most delicate part of human nature, have gone into decay, and fail to respond to the dictates of the higher sentiments. For the same reason these patients do not react to danger. At a fire they display none of the nervousness and panic that normal persons do, and they look on with indifference when a tragedy is enacted in their presence.

The other type of the insane who do not shed tears is composed of those individuals who, having passed through some painful experience, have become selfish and self-absorbed by harping continuously, as it were, on a single string. These patients generally belong to the type of mental disease termed "agitated melancholia," in which the content of consciousness is narrowed, and distressing memories or forebodings absorb the attention.

As is common with the emotions, in due time the painful part of the grief dies out, leaving the pa-

tient, perchance, nearly as demonstrative as at first, but it is obvious that the acute suffering has subsided, and that the outward show of grief is purely automatic in character. Shorn of its feeling it is also shorn of tears. We see, then, that with the lapse of time the affective element of the grief expends its force by repetition, and the soul finally dies out of the sorrow. This is the natural result of the strong stir of any of the emotions. It is the same with fear, anger, joy, or love as it is with grief. All of them are, according to the law which governs them, weakened by time; for the emotions, like other functions of the mind, are incapable of being exercised continuously at the top of their bent. An emotion, so to speak, which has lost its feeling tone is necessarily dead, so a grief which has lost its feeling element is in like manner tearless.

3. A Return to Reason just Preceding Death.

The third citation—that an insane person usually regains his mind just preceding death—is in the writer's experience incorrect. In the large number of about 1500 personally observed death-bed scenes he does not recall a single instance of the kind. The record shows that the mode of death in more than 90 per cent. of these cases was that of unconsciousness, usually of considerable duration. When it is remembered that a large percentage of the insane die after the mental malady has become chronic, and after marked degenerative

changes have taken place which have permanently damaged the integrity of the mind, and when these facts are coupled with the former (that 90 per cent died unconscious), it is plain that it would be out of the question to expect more than a scattered few to regain sanity before death. Among the few alluded to may be numbered an occasional phthisical insane person. Some of these patients who recover sanity may die in a year or so of consumption.

II.

THE IMAGINATION, ITS BENEFICIAL AND BANEFUL SIDES.

"The lunatic, the lover, and the poet
Are of imagination all compact;
One sees more devils than vast hell can hold,
That is, the madman: the lover, all as frantic,
Sees Helen's beauty in a brow of Egypt:
The poet's eye, in a fine frenzy rolling,
Doth glance from heaven to earth, from earth to heaven;
And as imagination bodies forth
The forms of things unknown, the poet's pen
Turns them to shapes, and gives to airy nothing
A local habitation and a name.
Such tricks hath strong imagination,
That if it would but apprehend some joy,
It comprehends some bringer of that joy;
Or in the night, imagining some fear,
How easy is a bush supposed a bear."

MIDSUMMER NIGHT'S DREAM.

THE IMAGINATION, ITS BENEFICIAL AND BANEFUL SIDES.

THERE is no power of the mind which stands so much in need of adequate cultivation as the imagination. It is not alone of value to the poet and the novelist, since the maxim, "The more imagination a blacksmith has, the better he will shoe a horse," refers equally well to other callings, even to humble boot-blacking. The development of the kindergarten evinces the growth of the sentiment that the right training of the imagination forms no small part of the management of character.

In studying the scope of the mind, one soon realizes that the imagination in every person will be limited to the confines of his own experience. A man born deaf cannot conceive true images of sound, and, similarly, one who is congenitally blind has no optical ideas to recombine with sensations of light. In one case, a trumpet's blast may resemble the hue of scarlet; in the other, a bright color, the boom of a cannon. The fact is very curious, as well as instructive, that the imagination cannot transcend the bounds of knowledge. To be sure, fancy often

"Bodies forth,
The forms of things unknown,"

but in so doing the components of these creations are necessarily real. As the writer who pictures fairyland for children, restricts his story-telling to the comprehension of the child, so the inspired writer of Revelation, when portraying the Holy City, fashions his visions out of worldly things, naturally the most beautiful and precious treasures of earth. In this description of St. John, we catch glimpses of gold, jasper, pearl, sapphire, and a crystal fountain, but in all of these entrancing views, we look in vain for new elements.

Literature abounds with illustrations. Hades, in Milton's "Paradise Lost," is compared to sulphurous fires, variously combined and magnified; Satan's personality is simply shaped after the type of the human form; and his gigantic staff is only a colossal pine. The Norseman painted his heaven, Valhalla, from the suggestions of his own experience, of eating and fighting. The North American Indian, likewise, created his future abode out of the substance that formed his ideals. Heaven was to him but happy hunting grounds, where the game never failed, and where he should again enjoy his dog, his bow and arrows and his wampum. Pianos in heaven is a conceit that has shocked the sensibilities of many a devout believer, who has joyed in the anticipation that "eye hath not seen nor ear heard"; but to some minds there is comfort in the thought that what gives pleasure in this life may be enjoyed in the life to come, with an exemption from things that are painful. A

lady of overwrought nerves, who had just passed through a perturbed period, once said solemnly to the writer: "There is no noise in heaven!" This was to her the dream of eternal bliss.

The field of consciousness has been likened to the stream of a river whose flow during conscious states is a ceaseless current. This stream of thought is made up largely of memory ideas and those of the imagination. On the receptive side of consciousness, the substance on which the mind feeds and grows is derived from without, through the senses. These impressions enter the mind as sensations. Curiously enough, it is found that consciousness has the power to unite earlier and later sensations and experiences, and with this combination the mind does the work of its subsequent thought and action. The mental process which here takes place may be described as the "fusing of a reproduction and an actual sensation."

As the young mind grows into maturity, free representations that in a measure separate themselves from the passing sensation of the moment become more numerous. Thus an independent field of ideas, a world of memory and imagination, becomes the content of consciousness. The analogy of the blood to the rôle of ideation is a felicitous one. In both instances it is formed out of nutritious matter obtained from the outer world, and becomes capable of leading, to some extent, an independent life.

We cannot, of course, completely isolate our-

selves from physical conditions. Sensations are received at every moment, even when the mind is occupied with free ideas; and sensations have a tendency to arouse implicate as well as free representations. Hence, it may be said, as Höffding has pointed out, there are always two streams in consciousness, one of which now prevails, then the other; one flows in the current of sensate perception, the other in that of representative consciousness; *i. e.,* in the current of memory and imagination.

Between the two currents, the presentative and representative, and also between the two elements in the latter, memory and imagination, there is an inverse ratio. They strive to check, or suppress one another. The more energy one element claims, the less, from the nature of the case, remains for the other. Both streams and both elements are present in every conscious state, but in different degrees of strength. In some moments we are almost wholly under the control of sensations and percepts; in others, buried in ourselves, under that of memory and imagination. As the relation between the two currents and the two elements of representation is different in the same individual at different times, so, too, is it unlike in different individuals. The tendency with some is to give themselves up entirely to the play of sensations, while others live mainly in free ideas, in memory and imagination.

Turning to the so-called practical side of life,

we find that the products of the constructive imagination have been the stepping stones for material progress. Every achievement had first to pass through this crucible before being put into execution, and by this power the forces of Nature are gradually being conquered by man. All inventions and discoveries have their common origin in this process. "Invention, using the term most broadly, and imitation," says Professor James, "are the two legs, so to call them, on which the human race, historically has walked."

One can never realize the connection between cause and effect, or between any other relations, until he has first joined them in imagination. The chimney, the stove, the stage-coach, the locomotive, are successive milestones, showing the progressive march of the imagination. Archimedes in the bath, formulating the law of the specific gravity of bodies, and Newton under the apple tree, discovering the law of gravitation, are familiar instances of this creative power in transforming the world.

In science the man who confines his observations to "mere facts," belongs to the class designated by Wordsworth when he wrote:

> "The primrose by the river's brim,
> A yellow primrose was to him,
> And it was nothing more."

But to the minds of men like Copernicus, Galileo, LaPlace, and Darwin, what marvels may be revealed in "the primrose by the river's brim."

Truly, "The imagination is the handmaiden of science." The biologist projects theories upon which to base his observations, the geologist forms notions of the earth's composition before he can intelligently pursue his investigations, and the astronomer traces the paths of the planets upon preconceived ideas in conformity with the laws of the universe.

The majority of the "exact" sciences are based upon suppositions that are called "working hypotheses." These hypotheses are only products of the imagination. John Fiske says: "The first man who explained an eclipse as the swallowing of the sun by a dragon propounded a hypothesis of the kind by which the beginnings of science and of theology are alike characterized." The theory which adapts itself most closely to the known facts of a phenomenon of Nature is accepted by learned men at its true interpretation. How light is propagated through space is, at best, only conjectural. Two theories have held sway, for many years, until the Newtonian theory has yielded place to the one of undulation, because it conforms more closely to the common sense of mankind. The atomic theory of matter had its origin in a similar way, and many other of the established truths of science are based upon simple conceptions without conclusive proof. What would happen to the science of chemistry and its allied branches, were some genius to arise who should point out with the penetrating eye of a superior imagination sufficient

fallacies in current theories to upset their claims for adherence.

We can see, then, why so-called sciences are living sciences—they are progressive and evolutional. See, for instance, how the science of bacteriology has sprung into life, and through its discoveries the whole field of medicine has shifted its base. Sir Benjamin Brodie realized even in his day the truths herein stated when he said: "Physical investigation, more than anything besides, helps to teach us the actual value and right use of the imagination—of that wondrous faculty, which, when left to ramble uncontrolled, leads us astray into a wilderness of perplexities and errors, a land of mists and shadows; but which, properly controlled by experience and reflection, becomes the noblest attribute of man, the source of a poetic genius, the instrument of the discovery in science, without the aid of which Newton would never have invented fluxions nor Davy have decomposed the earths and alkalies, nor would Columbus have found another continent."

The higher form of the imagination, the creative, is a noble faculty, and is only found in its perfection in the higher order of minds. By the vigorous exercise of this power the greatest achievements in human annals have been wrought, as pointed out before, and to it the world owes much of its material good in the civilizing influences of mankind.

Historically, as well as psychologically, there is abundant evidence that the imaginative powers in man lie deeply entwined in his nature. Before the higher intellectual endowments are manifested, the imagination of the child is displayed in a wealth of prodigality. "Childhood," says Sully, "is the age for dreaming, for decking out the as yet unknown world with the gay colors of imagination, for living a life of play or happy make-believe." When the powers of the mind grow dim in old age, and there is a return to the childlike condition, this tendency to yield to the pleasures of fancy becomes a ruling passion, exhibiting a desire for quiet reverie and dreaming. The analogy between the different ages of a man and the successive periods of the world's history is striking and complete. This resemblance may be seen here. As the imagination is intimately bound up in the life of the child, so in the childhood of the world the myth and romance impulse was dominant. The mystic development of the religion and philosophy of those early times was based very largely in the speculative tendencies of the primitve mind.

The instinct of self-preservation awakens in sentient creatures a spirit of alertness that is most acute in defenseless animals and children. From this source arises the attribute, fear, in all of its forms and gradations. Out of the imagination spring the protean forms of fear, and in no field of its operation are the results more curious or interesting. It is only a matter of degree between

the successive steps of normal fear, on the one hand, and morbid fear, on the other. They who are well informed say the imaginary fears of the mind diseased run very generally through most of the forms of mental aberration, appearing in the double rôle of cause and effect. One author states: "The man who has nothing to fear and the man whom nothing makes afraid, are not likely to reach a hospital for the insane."

It is proverbial that "love is blind," and so familiar is this saying that it requires no argument to prove how the imagination so often falsifies the view of the lover. A young woman, to whom a young man had not been particularly attractive, on a certain occasion gave evidence to him, as he erroneously supposed, that she had a tender regard for him. This act innocently done, and falsely interpreted by him, excited his pride. In responding to the presumed tender sentiment in her heart, he awoke in her a feeling of sympathy, and thus each masqueraded under the imaginary belief that the other was smitten, until it so fell out that they each fell in love. In this way the imagination tricks into false positions many poor mortals, either for weal or woe. Shakespeare seized this freak of the imagination for the plot of "Much Ado About Nothing."

The difference in the elementary composition of the imagination doubtless turns in great measure on temperament, tone of feeling, and preponderant direction of the emotions. The imagination is

closely allied to the feelings. Hence, the familiar fact that in some persons the imagination selects what is bright and gladsome, while in others it broods by preference on gloomy and terrifying objects. The gradations between these two extremes, as found in different people, shade imperceptibly into each other throughout the scale. Invalidism is conducive to a free flow of imaginary fancies. This is exemplified in the couplet:

"When the devil was sick, the devil a monk would be;
When the devil was well, the devil a monk was he."

Says another author, "A brave man dies but once, a coward many times a day."

In neurasthenic conditions the imagination is very prone to assert itself in a flood of morbid vagaries that often overwhelm the mind. In the whole range of the peculiarities of the insane, none are more notable, as a class distinction, than the many-sided expressions of the fancy. They may be seen in the buoyant output that the imbecile child lavishes in play on its simple toys; in the hebephrenic, smiling and laughing to himself, as his emotional nature is stirred by flitting fancies; in the passing musings of the chronic dement, and in the rambling incoherence of maniacal excitement, where sense-impressions of involuntary attention are overlaid by vivid images.

The normal function of the imagination may be so disturbed by mental disease that the conceptions take on an unwonted buoyancy and exaggeration,

as found in maniacal states when distorted views of religion are seen, or excessive hope, attended with delusive fancies of an exalted type, which precipitates the victim into a course of pitiable extravagance and folly; or, as seen in melancholia, when the ideas become cheerless and painful beyond the utmost limits of misery and want.

There is another domain of imaginative activity in persons of the insane diathesis that is a well-certified fact. It may be seen in a tendency to pervert the truth, either in exaggeration or senseless falsifying. This perversion is not due, as it may seem, so much to the blunting of the moral sense, as it is to a lively realizing imagination that too readily confounds the representative ideas with sensuous perception, so that the victim often fails to distinguish between fact and fiction. To be sure, this condition may be found in all degrees of intensity in healthy persons, more particularly when under the influence of mental excitement.

Lawyers, understanding the defects of human testimony, are likely to suspect fraud if the detailed stories of interested witnesses corroborate one another too exactly. But with due allowance for defective observation, reference is here made to a wider departure from the truth than ordinarily occurs among persons of mental integrity, who are able to give comparatively faithful accounts of their experiences. And thus it happens that the imagination is turned into a source of woeful misfortune, though intended, when properly trained and guided, to pro-

mote the present and future happiness of man beyond most of the other powers of the mind.

The passive imagination, or its lower state, known as fancy, prevails most in brains that are weak and of low grade, in which degenerative inherited tendencies are rife. In these sluggish minds this form of ideation is most common. The thoughts, by no effort of attention, are allowed to drift hither and thither by the automatic association of ideas. Allusion is not made here to the common vice of developing a prurient imagination, either by unclean books, or by evil associations, but to simple, day-dreaming, which is so potent in its baneful influence upon the mind. Ray, in treating of day-dreaming, says: "No form of intellectual activity is so common as this. Under all degrees of refinement, . . . it is equally obvious, varying only in the objects to which it is applied. . . . It begets a distaste for exact knowledge, for that is the fruit of laborious study; it indisposes the mind to habits of continuous thought, and quenches all thirst for intellectual excellence. The pleasures of the imagination are always accessible, and they can be enjoyed with little of that preparation which is needed in the case of other intellectual pleasures.

"This would be bad enough if the evil stopped here, but it extends much further. It actually incapacitates the individual for those intellectual efforts that are required for the great purposes of life, and circumscribes the sphere in which he can move with any degree of credit to himself or good to

others. An imagination thus indulged, feeling none of the checks and balances which cultivation of other faculties would afford, easily wanders into devious paths that lead at last to helpless and hopeless derangement. Life becomes a dream, and that dream needs only the favoring circumstances to be converted into delusion. . . ."

"I think it may be stated as one of the results of modern observation," he adds, "that the man who enters upon life with no habits of serious and connected thought, with no taste for investigating the causes and effects of the countless phenomena passing around him, with no practical object clearly set before him, and worthy of the pursuit of a rational creature, whose joys and sorrows, whose principles and motives, whose ends and aims are fashioned by the plastic touch of his own busy imagination, cannot promise himself exemption from mental disease, if at all predisposed thereto."

Every teacher knows the harmful effect upon the mind of day-dreaming in childhood, and if too much indulged in mature years it is liable to unfit one to meet ordinary exigencies complacently, and begets a taste for self-indulgence and sloth. We have all seen the day-dreamer, and the pernicious results of his castle-building.

Observe him in his work or at his studies carrying on a fanciful romance in which the hero is himself, weaving around this figure all manner of pleasant and delusive incidents that feed his egotism and excite his pleasurable emo-

tions. Besides wasting much time and dissipating mental energy, the youth is apt to form a distaste for the rigid duties and responsibilities of life.

The evil results of this habit react unfavorably on the character of the individual, for it weakens the will, warps the judgment, affects the emotions, and leads the victim into false notions of his relations to others. The absent-minded apprentice, who dreams of the advantages of idleness in luxury instead of giving heed to the task before him, turns out in the end a poor mechanic, and attributes his failure to causes based on an erroneous estimate of society. The slovenly accountant, dreaming listlessly over his books and giving no thought to his work, continues through life a tread-mill drudge; or, grieving over his misfortunes, the natural fruit of lax ways, he drifts over the border-line of healthy mentality and ends his days as he began them in the hopeless profligacy of dreaming. The young girl, led by idleness and novel-reading into the habit of revery, weaves into her imagination fancies that inspire ideas totally at variance with the stern realities of her being, and thus may be led into vanity, extravagance and folly, which open eventually into the maelstrom that ends in mental ruin. These are instances, familiar enough, of the results of an unhealthy exercise of the imagination.

In thus speaking of the undue exercise of the fancy, it must not be supposed that all activity of this function is unwholesome and prejudicial to mental health. In youth and health it gilds the

future with tints of joy and hope; in middle life it sustains the soul through many trying seasons of disappointment and pain; in old age it serves to clothe the comforting promises of religion with the glorious anticipations of future reward.

In every station, and in every period, the normal activity of the imagination tends to relieve the monotonous commonplace events of every-day life with inexhaustible sources of pleasure and recreation. Like all of our powers, it is given for wise and good purposes, and, if judiciously used, will insure desirable results.

III.

AN ALIENIST'S TABLETALK.

"I want to be alone, to find some shade,
Some solitary gloom, there to shake off
These tumultuous cares, that vex my life,
This sick ambition on itself recoiling;
And there to listen to the gentle voice,
The sign of peace, something—I know not what—
That whispers transport to my heart."

ANON.

AN ALIENIST'S TABLETALK.

Insomnia — Endurance of Cold and Hunger — Charles VI, France

Loss of sleep is an important symptom, not only because it is direct evidence of a disturbed mind, but also because it acts as a cause of insanity. A sleepless condition tends to continue when once established. In some cases sleep may be almost entirely wanting, or very light and fitful, and broken by dreams.

It has frequently been claimed that a great degree of muscular power, and a capacity of supporting with impunity the extremes of cold and hunger are effects, or at least properties of the nervous excitement of the insane. While this is true in certain instances, it cannot, like many other general truths, be applied indiscriminately to all types and conditions of insanity.

It is recorded that Charles the Sixth, of France, became insane from a violent fit of rage.

Complex Volition — Civil Condition — Pawnshop

A complex volition involves decision or choice. If several ideas are pressing for recognition and the attention is held down to one of them, the action follows just as surely, but it seems to be the result of voluntary effort. Moreover, the actions

which might have followed the other ideas are impeded or inhibited.

It is generally recognized that marriage is conducive to sanity. The causes of this are doubtless to be found in the more natural and healthful life of the married than in the unmarried; the lesser temptations to immorality, and, in the female at least, the natural fulfilment of her physiologic destiny.

One author compares the head of some people to a pawnbroker's shop, which is filled principally with other people's goods; a repository merely for ideas, not a soil out of which an idea may grow.

Mental Instability — Fast Living

The psychopath usually presents a more or less pronounced state of mental debility, weakness of attention, or of memory, sluggish formation of association of ideas, and poverty of imagination. He does not see things in their proper light, hence his singular notions, his paradoxes, his ridiculous enterprises. In some cases, some of the aptitudes of mind may be normal or even briliant, *e.g.*, memory, imagination, or artistic talents. In brief, the psychopath is a person mentally unbalanced. This is shown conspicuously in the extreme mobility of his emotional nature. He passes alternately from excessive joy to extreme distress, from feverish activity to profound discouragement, from affection to

hatred, from complete egotism to exaggerated generosity and devotion. His conduct also is full of contradictions, showing insufficiency of judgment and instability of the emotions.

"Living fast" is a metaphorical phrase, which more accurately perhaps than is in general imagined, expresses a literal fact. It is a course by which the candle is consumed at both ends.

Music — A Peculiarity of Feeling — Physical Stigmata

Since the day of Pythagoras in ancient Greece, music has been used in mental cases as one of the most potent agencies in care and treatment. Of the prophet Elisha it is written that after numerous perplexities, he would cry: "But now bring me a minstrel. And when it came to pass, when the minstrel played, that the hand of the Lord came upon him."

Esquirol, the noted French alienist, said: "Music acts most powerfully on the physical and moral nature, and I use it constantly in mental disease. It soothes and calms the patient's mind, and, though it may not cure, it is a most precious agent, and ought not to be neglected." It is said that Gladstone, when prostrated by mental fatigue, would have his favorite hymns sung to him. I can never hear portions of Wagner's "William Tell" without living over scenes of my boyhood.

Like the application of water, music has both

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stimulating and sedative functions. Joyous sparkling music acts as a tonic on the spirits, and its more somber movements lull the soul to rest. It may give innocent pleasure, or on the other hand be dispensed by the physician like medicine from a spoon. The wonderful perfection to which mechanical music has been developed in late years has markedly widened its field in mental medicine.

One peculiarity of both feeling and emotion is the impossibility of recalling them in their original intensity. A new feeling may be aroused quite similar to the first, but it will not be exactly the same. The details of the past experience may be recalled, but not its emotional tone. This is probably due to the fact that feeling and emotion are largely based upon transitory organic conditions which are entirely beyond the control of the will.

Mental peculiarities are almost constantly associated with physical anomalies, which are known as the physical stigmata of degeneration. The principal physical abnormalities are: cranial malformations, craniofacial asymmetry, harelip, dental anomalies, anomalies of the external ear, irregular pigmentation of irides, strabismus, malformation of the external genitals, infantilism, and anomalies of the limbs and hands and feet. These signs mean not only deviations that may be seen but of the body as a whole.

Borderland — Education and Insanity

It is helpful when thinking about insanity to remember that it is separated from sanity, not by an imaginary line but by a comparatively broad belt of borderland. This belt is comparable to twilight, which divides day from night. At the centre of the belt it is difficult to say whether one is in the field of sanity or insanity. Imperceptibly at first there is a shading out towards the border in both directions, one passing into more pronounced evidences of insanity, and the other into clearer signs of sanity.

We are not to regard the mind a storehouse of knowledge alone, but also a workshop wherein, through its subtle action, ideas are elaborated and all the higher manifestations of mind are developed. Thus the cultured mind is built up into a most perfect structure; its weak points made strong, its by-ways guarded, until it possesses all the advantages over an uncultured one that strength has over weakness, endurance over instability, and intelligence over ignorance everywhere and in all the interests of life. Can we fail, then, to note the cogent power that education exerts in the prevention of insanity.

Travel — Color of Hair and Eyes

The question is frequently asked, Should the threatened patient travel? This is an easy solution of the problem for physicians, and an error

into which many of them often fall. It is so easy to order the patient away that it is adopted with more frequency than wisdom. Change of scene may do good, but constant change of scene with its labors, vexations, and trials, especially in a foreign country, may do much harm. But when travel seems best in particular cases, it should always include provision for care and protection, change and repose, and the right admixture of exercise and rest.

I believe it is generally better for the convalescent than for the threatened patient—at the end rather than at the beginning of the attack.

In former years importance was attached to the color of the eyes and hair as predisposing to mental disease. It is a fallacy that has long been abandoned.

Fresh Air — George III — Power to Weep

In the general care of insane patients there is generally too little regard to the importance of supplying them with a liberal amount of fresh air. We have learned in the treatment of tuberculosis that every additional hour of open air insistence caused corresponding improvement. A case of tubercular joints, for illustration, when kept out of doors for twelve hours does very well, but when it is continued for the full twenty-four hours each day the gain is much greater. This same principle applies also to cases of mental excitement and

mental depression. If a patient who is highly excited is placed in a room where a constant supply of fresh air can come to him freely from several directions by day and night, there will be found a more marked improvement in his symptoms than is usually found in the customary care of these cases. In the same manner, open air treatment has a decided curative effect upon acute cases of melancholia. It is a good plan to select a room somewhat isolated, where the bed may be exposed at night to the air of open windows, taking the proper precautions, however, against exposing the patient to drafts, and for protecting his body well from the cold. It is not enough to keep windows on a crack, they should be wide open, allowing a free flushing of pure oxygenated air. If the patient is in a condition to be dressed in the day, he should be kept out in the open air. Some hospitals for the insane today establish colonies where the cases adapted for this treatment may be submitted for long periods of time to the healthful influence of camp life. The continuous bathing, as it were, in fresh air causes an improvement in the patient's sleep and in his appetite, and tends to bring about a restoration of all the normal functions of the body, and to shorten the duration of the attack.

Usually peculiarities of speech, which may be suspended in the attack, resume their wonted force when convalescence sets in. For example, the

habit of stammering, suspended during derangement, returns when the patient mends. It is said that those in attendance upon George III. of England could predict a lucid interval in his attacks, as soon as they heard him speak with rapidity, which was natural to him.

A return of the power to weep is generally a good sign. It indicates a return of the normal state of the affections. In like manner is a return of the sense of delicacy, especially in the female sex.

Civilization — Heredity — Orientation — Liver — Spleen

Insanity is distinctly a factor of civilized life. It is most prevalent in highly cultivated communities, in the centres where civilization has reached its greatest development. As one author says, the struggle for existence, in the process of evolution, has changed from a physical to a mental strife. The seat of the contest is shifted from the hardy muscle to the delicate structure of the brain. In other words, the stresses of life become more and more mental rather than physical.

It appears to be a primal law of Nature that the mental and physical traits of the parents descend to the child. As one writer tersely puts it: "If the child did not inherit the result of that which had gone before, with additional power of

development on his own part, all social growth would be rendered impossible. The torch of civilization is handed from father to son, and as with the idiosyncrasies of mind, so the very body itself often exhibits well-defined marks of its parentage."

Normal orientation is the power to recognize one's surroundings. It implies integrity of the following three elements, which comprise one's apprehension of his environment: (1) the notion of his own personality; (2) the notion of the external world (space); and (3) the notion of time.

The most ancient opinion of the cause of insanity is that it is derived from a morbid state of the liver, which shows itself in a vitiated state of the bile. Hippocrates himself laid the foundation of this error.

Insanity has also been said to be due to disease of the spleen. This organ was supposed to be affected in a peculiar manner in hypochondriasis. For many years it was known in England by no other name than spleen. Even to this day, in some parts of the country, persons affected by it are said to be spleeny.

Training Schools for Nurses — Exercise

It is difficult, in a few words, to present adequately the good results that may come to a hospital through the medium of a training school.

The trained nurse has come to be widely accepted as essential to the successful work of every hospital. Her worth has been made apparent to both patient and physician, and the nobility and attractiveness of her profession are recognized, even among dull observers. In precarious illness, be it fever more especially, the scale is often turned by the skill of the nurse. From the standpoint of the physician, the advantage of the new order of things is obvious. To have nurses in every ward, who can make an intelligent analysis of all they see and detect in the innumerable details of the sick-room, is to have instruments of precision at hand in applying remedies. Any hospital thus equipped invites both the humane and scientific spirit to dwell and flourish therein.

As to amusements for mental patients, one of the old English poets says:

> "To cure the mind's wrong bias, *spleen,*
> Some recommend the bowling-green;
> Some hilly walks—*all* exercise,
> *Fling but a stone*—the giant dies."

Habit — Agoraphobia — Claustrophobia

Habit is that form of involuntary action which is acquired. It consists in a disposition to repeat an action whenever favorable circumstances are afforded. Thus any particular movement of any bodily member repeated many times becomes a

PINEL STRIKING THE CHAINS FROM THE INSANE, 1793.

habit. A particular activity of any mental power also tends to become a habit. Man is sometimes described as a "bundle of habits." Habits originate either from external circumstances or from acts of the will. Many habits are induced by recurrences in our experience to which we give but little attention. We adapt ourselves to our surroundings, and habits are spontaneously formed. Other habits originate from a specific act, or series of acts of the will. This is the origin of most of our complex habits, such as reading, writing, playing on musical instruments, and so forth, which require repeated and attentive mental direction in order to establish them. Nine-tenths of our actions are done under the force of habit.

Agoraphobia is a mental state in which there is great fear of public places; *claustrophobia* is the opposite, when the patient is unable to remain in a closed space.

Predisposing Occupations — Celibacy

Certain occupations predispose to insanity more than others. Such are those which involve exposure to toxic agents, or open special irregular and unnatural habits of life. Again, occupations requiring great mental strain, entailing responsibility or productive of excitement and uncertainty tend to produce insanity. Poets, painters, sculptors and musicians are very subject to it. On the

other hand, Pinel states that he never knew an instance of it in a chemist, a naturalist, a mathematician or a natural philosopher.

Single persons are more disposed to insanity than married people.

"The absence of real and present care, which gives the mind leisure to look back upon past, and to anticipate future and imaginary evils, and the inverted operations of all the affections of the heart upon itself, together with the want of relief in conjugal sympathy from the inevitable distresses and vexations of life, and for which friendship is a cold and feeble substitute," are reasons that Dr. Rush gives in favor of the marriage state.

It is said, "celibacy is a pleasant breakfast, a tolerable dinner, but a very poor supper."

Feelings — Torture of Mind

All mental processes are accompanied by certain general conditions of consciousness which are pleasant or unpleasant, pleasurable or painful, agreeable or disagreeable. These pleasurable or painful states result from sensory stimulation, and are due to kinaesthetic (organic) sensations. Owing to the ceaseless activity of the bodily organs, there is at all times a complex of kinaesthetic sensations in consciousness. This complex results in a feeling. These feelings blend with those aroused by

peripheral stimulation, and a more complex feeling results.

Boswell, in his life of Johnson, relates a story of a London tradesman who retired after making a large fortune. Having nothing to retire to, he falls into a melancholy state of mind from want of occupation. He developed a painful bodily disease. In a severe paroxysm of pain a friend attempted to sympathize with him, "No, no," said he, "don't pity me, for what I now feel is easy, compared with that torture of mind from which it relieves me."

Illusions — Brain-weight — Non-restraint

Illusions may be caused by a blending of new impressions with ideas which at the moment dominate consciousness, even though these dominant ideas have little in common with the impression. On a dark, lonely road, where one is apprehensive of meeting an unfriendly stranger, a slight noise may be readily interpreted as footsteps, or a couple of posts as highwaymen. In circumstances of this kind, the associated ideas are so much stronger than the sensory impressions that they gain the ascendancy in consciousness, while the milder sensorial contribution lends them so great a character of reality that an illusion results. Many of the illusions of the insane may be explained in this way.

The average weight of the brain in the male is about 49 ounces, in the female 44 ounces. It appears that the weight of the brain increases rapidly to the seventh year, more slowly to the period between 16 and 20 years, and still more slowly to the decade between 30 and 40 years, when it reaches its maximum.

I am convinced that employment and non-restraint are twin sisters that must go hand in hand in the upward march of improvement in the treatment of the insane.

Binet-Simon Scale — Travel — Cowper

In accordance with the results attained by the Binet-Simon measuring scale of intelligence, an idiot possesses a degree of mentality that does not go beyond the normal child of 3 years; an imbecile possesses a degree of mentality that does not go beyond the normal child of 7 years; a so-called moron possesses a degree of mentality that does not go beyond the normal child of 12 years.

Speaking of traveling for mental invalids, Dr. Benjamin Rush observes: "Long journeys should be preferred to short excursions from home. They relieve the mind from a monotony of objects, and awaken a constant succession of new ideas. They moreover create a necessity for constant bodily ex-

ertion, and they remove the patient from the society of his friends, who, by being obliged to listen to his complaints, add fuel to the disease."

Cowper has well said,

"Absence of occupation is not rest,
A mind quite vacant is a mind distress'd."

Insanity in Men and Women — Employment

An analysis of the last published United States census reveals some suggestive facts. Heretofore, statistics showed that insanity was about equally divided between the two sexes, but the last report indicates that there is more insanity among men than among women.

Of peculiar interest in this connection is the table relating to alcoholic psychoses and general paresis—mental diseases, which, generally speaking, are the aftermath of vice and dissipation. If from the total number of admissions to the institutions the cases of alcoholism and paresis are deducted, the disparity between the sexes practically disappears. About 25 per cent. at least of insanity in the male sex is due to vicious habits.

When a fit of intellectual disgust comes over me, I will tell you what I have found admirable as a diversion, in addition to golf and other amuse-

ments—that is, work in my garden. Some outdoor employment is the greatest possible relief after the intellectual parts begin to tire.

Occupation — Mann — A Favorable Sign

Dr. Mann, speaking of occupation, says: "Out-of-door work is very valuable for patients in promoting assimilation and digestion, and strengthening the muscular system, and should be employed whenever practicable." Light indoor employment is also advised, and the author continues: "In insanity we have an abnormal state of nervous tension and pent-up nerve-force, which must expend itself in some direction, and must generate an equivalent manifestation of force, either in feeling, thought or bodily action. If, then, we cause the nervous excitement or pent-up nerve-force to be expended in bodily or muscular action by means of employment, we shall decrease correspondingly the morbid thoughts and feelings which are caused by the intensity of the cerebral excitement. If we allow our patients to remain idle, the whole pent-up nerve-force is expended and concentrated upon thought and feeling, which became morbidly intensified and perverted, and at last produce incurable and organic changes in the brain."

Warm and moist hands, after they have been long cold and dry, is a favorable sign.

Hallucinations of Hearing — A Problem Unsolved — Slow Recovery

Hallucinations of hearing are the most common variety of this form of false perception. In explanation, the patient is apt to call them internal "voices," alleging that they are conveyed within him by telegraph, telephone, phonograph, or more ambiguously by some system of electricity, or otherwise by some occult power. In degree they may be gentle, when the patient hears his own thoughts, or so pronounced as to draw him into conversation. Again, the sound may not seem to extend beyond the patient's own body, but is referred to some part of it, as, for instance, believing that there is a child in his throat speaking to him. These false voices may seem to the patient to speak in a whispering tone from a distance, or very near at hand, or they may shout loudly, as coming from the floor above, or beneath the individual.

It is often a peculiar idea among the insane with auditory hallucinations that others read their thoughts, and in this manner take undue advantage of them, even holding them up to ridicule, a condition that often leads to violence. These false voices may be pleasant in character, where sweet strains of music are heard, but usually they are disagreeable and distressing. They are apt to excite the patient to violence when they take the form of reproaches, insults, and ironical remarks. They may be recognized as some known person, or merely spoken of as "voices." Their threats

compel him to flee, their commands lead him to murder or to senseless and unnatural acts, especially when ascribed to the higher powers.

"One of the greatest problems," says an English author, "as yet unsolved for medical men, is: 'How the predisposition to insanity can be avoided, and, when present, how it can be got rid of.' Beyond laying down general maxims as to living according to the laws of Nature—cultivating bone and muscle and fat, and letting the brain lie fallow, making the educational process one of true development on physiological lines, going back to Nature, in fact, in all directions—we are as yet unable to do very much in preventing the development of insanity with scientific certainty."

A slow recovery is decidedly more favorable than a rapid one.

Mental Nursing — Yoked to Plow

The young woman who becomes skilled in mental nursing acquires, in her education, a wholesome development of character, by the drawing out of those qualities that are so needful to success in her life work. Patience, forbearance, and discernment are some of the qualities which are demanded to a great degree. By reason of this training she is better fitted for her trying duties than by the mere advantage of a larger familiarity

with the details of the sick-room. From the very nature of the maladies treated, she forms, also, the habit of being more keenly observant of her patient. It is this process of lifting up the character of the nurse which constitutes the chief element of her training. In this connection Dr. Cowles says: "The true philosophy of the matter lies in the fact that work in mental nursing trains the woman; it is a most general and fundamental training of character, self-control, and the Christian graces."

Before humane methods were adopted in the care of the insane, it is related by Dr. Gregory, of Scotland, who flourished at the end of the eighteenth century, that disturbed patients, a number of them at a time, were yoked together to a plow and compelled by fear or force to plow the fields.

Insanity — Age — Flowers and Plants — Heredity

Insanity may arise in any period of life, from youth to old age. It is a disease, however, which is apt to manifest itself more frequently in early adult life between the ages of 20 and 40 years. To be more explicit, the span in which the largest number of persons first break down mentally is between 25 and 35 years.

The enjoyment of flowers and plants is keenly felt by some patients, while all, more or less, are

favorably affected by them. These good things of Nature are not used by psychiatrists in the sense of luxury, but are cultivated and brought into the lives of patients because it is believed that they have a tonic influence upon their spirits, just as a beautiful landscape or any other object that promotes cheerfulness has a curative effect on brooding thoughts.

Insanity that arises from a hereditary predisposition may more readily yield to treatment in the attack, but is more apt to recur than that which comes from acquired causes.

Slow-rapid Onset — The Paranoiac

The progress towards mental breakdown is sometimes rapid, but more frequently it is of slow onset. The mental fabric is often thrown into ruin by a single and unanticipated blow; but in the majority of cases, many pulls and frequently repeated concussions are necessary before the last crash of dilapidation.

The poet with great degree of insight, describes the cold, hostile bearing of the paranoiac who views the whole world with malign bitterness.

"By sharp sensation wounded to the soul,
He ponders on the world; abhors the whole,
In the dire working of his wakeful dreams,
The human race, a race of demons seems.
All is unjust, discordant and severe;
He asks not mercy's smile, nor pity's tear."

IV.

HOW TO AVOID INSANITY THROUGH INHERITANCE.

"The childhood shows the man,
As morning shows the day."

MILTON.

"The gods visit the sins of the fathers upon the children."

EURIPIDES.

"O suffering, sad humanity!
O ye afflicted ones, who lie
Steeped to the lips in misery,
Longing, yet afraid to die,
Patient, though sorely tried!"

LONGFELLOW.

HOW TO AVOID INSANITY THROUGH INHERITANCE.

THE well-known truths concerning heredity are very fully recognized by all writers of psychiatry, and also the significance they assume as a source of mental and nervous diseases.

The transmission from parent to offspring of factors which make for certain normal physical and mental characteristics is called physiologic heredity. This phenomenon invariably takes place through the egg and sperm; and on this account the peculiarities of inheritance can be due alone to the peculiarities of the germ cells. The male and female germ cells, although very different, are essentially alike. Hence, the blood of inheritance is not a single stream, but a blended one from both sides of the house. The characteristics of parents in the germs of both may blend in the offspring, so as to result in qualities that were not possible to arise from either one of the parents. Transformed inheritance ("variation") is in equal degree regarded a true transmission, as in the case of qualities passed on to the child without change.

Hereditary likeness or repetition is the most common variety of normal inheritance. It is often recognizable in gross and in minute anatomical characters, such as form, structure, location, size and

color of each and every part. Again, it may show the father's characteristics at one stage of life, and at another stage the traits of the mother. Sometimes the prepotency in one side of the family is so strong that certain mental qualities or physical features are persistently handed down in spite even of unfavorable conditions so pronounced as reverses of fortune and constant crossing by marriage. It is a common observation that certain characters of eyes, nose and lips run in families, as well as stature, weight and complexion. The same may be seen in respect of left-handedness, near-sightedness, and the tendency to bear twins and triplets. In some families all of the male members grow bald at the same period of life, while other families in like manner take on flesh. Moreover, there are short-lived and long-lived families; some in whom the powers of endurance are strong, and in others may be remarked dominant mental powers that are exceptional (Conklin).

The authorities seem agreed that diseases themselves are not directly inherited. It is a well established principle in medicine that function in the animal economy chiefly depends on structure; it is on this fact that morbid inheritance is based. When an individual is affected by a so-called "inherited" disease, it is not the inheritance of this disease with which we have to deal, but rather a tendency or predisposition to it. In other words, it is not the special pathologic characters themselves that are transmitted, but a predisposition, by

the result of peculiar anatomic or physiologic traits which favor the development of certain diseases. This morbid influence, acting in the germ-plasm and germ-cell, tends to break the continuity of normal inheritance and to create new characteristics, which, being abnormal, are less in harmony with the environment, and consequently hamper the individual in life's struggle. This defect or weakness is manifested usually by "a morbid condition of nutrition, a feebleness of development, and certain functional incompetencies." Thus this vicious state is capable, under favorable circumstances, of engendering the diseases that are generally regarded as hereditary.

For example, it is not the psychosis which one terms dementia præcox that is inherited, but a functional incompetency based on faulty structure which favors the disease, through a defective power of germ-cells to transmit entirely normal characters or functions. Herein lies the fundamental difference between physiologic and pathologic transmission. One should guard against the error of confounding simple infection with inheritance, for instance, in such conditions as congenital syphilis and tuberculosis, both of which may arise from either of these causes. According to the Mendelian laws of heredity, it is the activity of the so-called "determinants" in the germ-cells that alone determine the dominant characters. The one that does not appear in the child is designated the "recessive" character. This special predisposition, which is a

morbid hereditary deviation from the normal type, whether grave or light, is always associated, as intimated before, with a corresponding change in some function of the nervous system. These changes and their "signs" are called the *stigmata* of degeneration; the subject in whom they appear is termed a degenerate.

Degeneration, then, is the dissolution of normal heredity, and in its ultimate stages it ends sexual heredity by imposing sterility on its more advanced subjects. The spermatic and ovarian cells, crippled in their power of development, are unable to promote evolution along ancestral lines. Hence the various arrests in development seen in these subjects, the numerous malformations of the body, and disordered functions of the nervous system (physical and mental stigmata), as well as the diminished power of resistance of the nervous system, which, being badly balanced, readily succumbs to all external agents of an unfavorable kind that act on it.

In morbid inheritance, the diathetic and nervous conditions are seldom transmitted in the same form from parent to child. The morbid basis persists, and it alone is transmitted. The psychoses are transformed usually in each succeeding generation, and may be different in members of the same family. In a certain number of cases the psychoses are transmitted in the same form from parent to offspring. This is known as homologous or similar heredity. When the heredity is attributed

to parents it is called immediate; when observed in branches of the family, it is collateral; when on the side of both parents it is then double, or of convergent factors. When it is from one parent it is simple heredity, either paternal or maternal, as the case may be. According to some authorities, the latter is the more serious of the two; it is also three times more common. When it has existed for many prior generations it is called cumulative; when it becomes more and more intensified by transmission it is said to be progressive; if it is alleviated by a series of fortunate crossings it is regressive. When the hereditary psychosis appears at the period in life that it occurred in the parent it is called homochronous. When it appears in the child before it is seen in the parent it is called anticipatory.

The tendency to the reappearance in the descendants of the heredity, which has been latent for one or sometimes two or more generations, is an extremely common form known as atavism. The latent character may rise to the surface by the union of an individual in whom it is dormant with another person in whom it is potential. It denotes the occurrence among collateral relatives of certain morbid peculiarities similar to those which occur in the parent stem. Strictly speaking, collateral heredity has not any significance apart from atavism (Macpherson). The non-development of the insane diathesis in these cases may be due to favorable conditions of life or to the activity of

another diathesis. The most common example of this is seen in the substitution of tuberculosis for mental disease.

The diagnostic value of a hereditary tendency to insanity depends largely on its degree. Thus, the insanity of one parent would indicate a less degree of predisposition than that of one parent and an uncle, or still less than that of a parent and a grandparent or of both parents. Again, the insanity of a parent and a grandparent with an uncle or aunt in the same line may be held to indicate a stronger predisposition than even the insanity of both parents. The significance of the insanity of parents will depend, also, to a large extent, upon the period of its onset. The insanity of a parent occurring after the birth of a child, if it arose from a cause adequate to excite it without previous predisposition, would be held as of no value in the formation of a hereditary tendency.

The insanity of relatives more remote than parents, uncles and aunts, brothers and sisters, and first cousins, is not worth anything except in corroboration of nearer and weightier facts. But the influence of other related disease to insanity occurring in those near akin, such as eccentricity, alcoholism, epilepsy, hysteria, hypochondriasis, vicious or criminal tendencies, and so forth, may be of greater import. It will thus be seen that the evidence of hereditary predisposition may be of such a character as to render insanity in a patient an event highly probable; or, on the other hand, it

may be so weak as to add a scarcely appreciable amount of probability to the character of the disease.

It may be seen from what has gone before that morbid heredity is not a positive quality, but a negative one. There are, it is true, potent causes which may invalidate a previously normal brain, and predispose it to mental breakdown, such as alcoholic indulgence, traumatism, and some physical diseases; but, as a prominent writer says, "It may be generally stated that in order to become insane a person must inherit a vice of organization." We should look, also for the inheritable antecedents of insanity, not alone in insanity itself as revealed in progenitors, but in all diseases that display evidence of undue instability or disorder of the higher nervous mechanisms.

Thus, the nervous peculiarity which exhibits itself by insanity in the child may have become manifest in the parent, not as insanity, but as epilepsy, as chorea, as hysteria, as "nervousness" and fidgetiness, as somnambulism, drunkenness, or in some other form.

Intemperance is a most productive agent in the deterioration of the quality of the mind. The result is patent enough in the case of many a drunkard, but the effect is seen far more frequently in the lives of the children, even to the third, and perhaps to the fourth generation. In the cases of the offspring the vitiated condition of brain may take the form of idiocy, insanity, intemperance, a

propensity to vicious habits, or of irresistible impulses to crime. An intoxicated parent, or one whose nervous system has for years been in an unnatural state, due to alcoholic indulgence, most probably will give to a child engendered under such circumstances an unstable nervous system, and in many cases a defective cerebral development. For instance, Dr. Howe of Massachusetts, reporting the causes of idiocy in that State, found that out of 300 idiots 145 of them were the offspring of intemperate parents.

Consanguineous marriages are also held to be of the conditions that predispose largely to insanity, and as well to deaf-mutism. The belief is so general that it is worthy of consideration. The fact is recognized at once that persons near akin with the same hereditary tendencies toward a particular disease may bequeath to children born of such marriage this tendency to disease, together with a still weaker combative force against it. Probably the greatest danger is from this weakening of the constitution in the next generation.

The advantages of cross-fertilization in the vegetable kingdom have long been recognized. The introduction of a stronger life by fertilization from a plant grown in different conditions produces larger and better growth, greater strength to resist adverse circumstances, and increased fertility. It has been found that cross-fertilization by plants grown in similar conditions and surroundings is not advantageous, so that the end desired must be

derived from the differentiations resultant from many generations influenced in turn by their external circumstances. Consequently it may be inferred that marriages between cousins of different environment and innate inclinations may be entirely satisfactory, while the marriage of cousins living in the same community, influenced by similar conditions, and receiving a like heritage of physical weakness, may result most disastrously.

Persons of the same family, even with different educational surroundings, cannot change in organization to any great extent; radical, effective differentiation is the result of many years and of many combinations of dissimilar natures. The inborn similarities of two natures cannot change greatly in a lifetime. For all near-of-kin, therefore, there is but one way of surety and safety. Many consanguineous marriages have not brought disastrous results, but on the other hand very many persons have been prolific in bitterest regrets in that they have brought into the world lives of irremediable suffering, or natures incapable of instruction and development.

This lesson is one that it is far safer to heed, because of the possible risk of even the weakened constitution of children, to say nothing of the more dreadful possibilities in deaf-mutism and idiocy. This risk is enough surely to balance a great sacrifice of one's personal happiness.

The treatment of heredity in insanity is the most important, because the most practical, side of

the question. In the training of children thus predisposed it will be found that method, patience, persistent command of temper, self-denying industry, and much knowledge of child nature are necessary. As to choice between home and school treatment, it is impossible to decide all cases offhand. Some do better at home, some do better at school. Few will do well at home, however, where it is impossible to be strict without being stern, or to carry out the necessary discipline without setting aside the claims of natural affection. The selection of the proper person to carry out these plans of discipline is by far the most important factor in the early history of the case.

Moreover, a sound mind needs a sound body; and exercise, food and raiment exert marked control over the health of these children. Their lives must be a happy medium between the Scylla of overexertion, overdiscipline, overstudy, and the Charybdis of the antithesis of these factors.

When the child has become the man, or at least when he comes to be his own master, then is the time of greatest trial. The physical and moral storm of puberty and adolescence must be encountered, and great temptations have to be met with less guidance. When the outbreak is imminent the problem arises: Should the youth or man continue or stop his regular occupation? This is a question which cannot be answered without a study of the individual case. In some instances it is better for the patient to do this; in some, worse. The

only general rule to follow is that if the calling is attended with anxieties which weigh upon the ailing mind, it should either be given up for a time or its burden should be lightened.

It is not generally understood, though true, that hereditary insanity has a better outlook to mend than that due to other causes. On the other hand, the risk of recurrence is greater in the former than in the latter.

If a member of a family has become insane, it in itself should give a sense of security to the other children, because the family quota is probably filled. Mental ill, like other ill fortune, is subject to the law of average.

Closely allied to the subject of mental strain is that of sleep—

> "Man's rich restorative, his balmy bath,
> That supplies, lubricates, and keeps in play
> The various movements of this nice machine,
> Which asks such frequent periods of repair."

It is essential to the school-going child that he shall have not only good, natural sleep, but that there shall be plenty of it. But, strangely enough, sleep is regarded by many as a useless waste of time, and, besides, an impairer of the mind, which, like some honeyed temptation, should be strenuously resisted and avoided. Sleep is not a passive rest or negative state in which we lie "awaiting the dawn," but, aptly, it may be compared to a filter. It strains off the gross impressions which do not enrich; or, like the farmer's fanning-mill, it

winnows out the superfluous materials of the day —it separates the chaff from the wheat. At one time it was a belief in medicine that the body only grew during the night. Although science has long since discarded such a theory, yet it will probably be generally conceded that the time passed in sleep and rest is very fruitful for the expansion of our higher natures. As the body lays in food and afterward converts it into bone and tissue, so the sensations and events of the day—the immaterial pabulum of the mind—becomes assimilated during the hours of rest. May we not join in hearty response to Sancho Panza's invocation—

"God bless the man that first invented sleep!"

Sleep, so necessary to the well-born child, is a subject of much greater consideration in one predisposed to mental instability through heredity.

V.

CARE OF THE MIND.

"A child will learn three times as fast when he is in tune, as he will when he is dragged to his task."

LOCKE.

"Where education has been entirely neglected or improperly managed, we see the worst passions ruling with uncontrolled and incessant sway.

"Good sense degenerates into craft, and anger rankles into malignity. Restraint, which is thought most salutary, comes too late, and the most judicious admonitions are urged in vain."

S. PARR.

CARE OF THE MIND.

THE brain is a fine piece of mechanism, wonderfully adapted to its purpose. It is composed of millions of brain-cells and nerve-fibres sustained in a network, and abundantly supplied with blood-vessels, which run through every part of it.

As the seemingly countless intricacies of Nature's workings are reducible to the fundamental forms of law, so the brain, as the mind's agent, performing such multifarious functions, follows this law of simplicity in its construction. It depends for its growth upon the same physiologic laws as do other parts of the body—necessary nourishment, exercise and rest.

But the relation between mind and body is still a subject of study and experiment. Modern science is convinced that they are vitally connected in their activities, but how no man can tell. "All mental states are followed by bodily activity of some sort. They lead to inconspicuous changes in breathing, circulation, general muscular tension, and glandular or other visceral activity, even if they do not tend to conspicuous movements of the muscles of involuntary life; . . . all states of mind, even mere thoughts and feelings, are motor in their consequences." Further, James says: "One has only to consider how quickly consciousness may be

(so far as we know) abolished by a blow on the head, by rapid loss of blood, by a full dose of alcohol, opium, ether or nitrous oxide—or how easily it may be altered in quality by a smaller dose of any of these agents or of others, or by a fever—to see how at the mercy of bodily happening our spirit is." Not only in medical treatment and in accidents is this seen, but also in the daily functions of the brain in comparative health.

All mental and physical activities occur at the expense of energy generated in the bodies of nerve-cells. These cells are of a highly complex chemical composition, and because of their complex organization they are unstable, and therefore easily broken down, the energy thus being liberated and dissipated in an impulse to motor and mental activities. So long has this truth been established in causation of motor activities that no one questions that part of the statement. Experiments of later years have resulted in equally convincing proof that thought as well occurs at the expenditure of energy stored in cerebral cells. By way of example, after a time of difficult mental work one becomes aware that the temperature of the head is increased; this results from a call for blood necessary to furnish nourishment for broken-down cells. The feeling of heaviness or of pressure in the cephalic region, and the distended blood-vessels, tell the same story. Again, by a number of experiments carried on through openings in the cranial wall it has been found that the prolongations of the cells at night

are shrunken, while after a night's rest they are completely filled out, showing that sleep tends to build up "the worn out stock of force-producing materials."

The fact that the brain is both a source and a storehouse of energy, necessary to the activity of the mind or body, is the reason why strength can be expended successfully in but one direction at a time. A man engaged in hard muscular labor finds himself lacking vigor in his mental work, even though he may have been carefully trained in the latter. We do not expect one laboring under great emotional excitement to accomplish much intellectually; nor when the vitality of the system has been dissipated in repairing the ravages of disease do we require strenuous physical or mental tasks.

A leading writer (O'Shea) says: "The vigor and efficiency and spontaneity of either physical or mental activities in the business, social, and educational world depends in some degree upon the amount of nervous capital one has on deposit in the central nervous mechanism. Cerebral depletion (a relative term) reduces the force of muscular effort, renders attention less concentrated, resulting in a gradual obscuration of mental vision, and estranges the emotional nature, begetting a general condition of disphoria and apprehensiveness, and removing restraints upon antisocial impulses—as anger, irritability, and similar traits."

That we may see more clearly how the cere-

bral condition controls the physical and mental activities, let us examine the general mechanism of the brain as it operates with and through the nervous system.

James, in speaking of the brain as operated on by the outer world, says: "Just as we arm ourselves with a spoon to pick up soup, and with a fork to pick up meat, so our nerve-fibres arm themselves with one sort of end apparatus to pick up air-waves, with another to pick up ether-waves. The terminal apparatus always consists of modified epithelial cells with which the nerve-fibre is continuous. . . . The fibres are mere transmitters; the terminal organs are so many imperfect telephones into which the material world speaks, and each of which takes up but a portion of what it says; the brain-cells at the fibre's central end are as many others at which the mind listens to the far-off call."

With this suggestion let us follow out the analogy to the telephone system.

The brain is the central station. Leading out from the central station is a cable made up of a large number of individual wires so insulated that a message may be transmitted over one without interfering in any way with a message being carried by an adjoining one. But at certain intervals along this conduit a wire leads out here, and another there, in order to reach the individual subscriber, which subscriber is for the time a terminus of the line. At intervals along some of

these individual wires are substations from which radiate other wires to other individual subscribers. Or there may be two or more individuals connected with the substation by one wire. Now in order to show the analogy: A desires to call B. He calls up the substation and asks for connection with B, who in the supposed case has direct connection with the supposed station.

Thus a terminal nerve may receive an impression which is carried to the ganglion corresponding to our substation, and connection be made immediately with some motor nerve without having any impression carried to the brain, our central station. On such a call the substation would not transmit to the general office any note or report of said call, until the daily report be submitted.

For illustration: A fly alights upon the nose of a boy asleep. The nerve terminals (receiving wire) in the skin of the boy's nose transmit the message of the annoyance to the ganglionic centre in the pons (our substation); the message again is sent on to an adjoining substation, which hurriedly sends out a notice to the boy's arm which says "Shoo fly."

Again, A wishes to call up X, who has no connection with the substation near A, but is in direct connection with some other substation. A calls substation L, giving the number of the 'phone in use by X, which number is transmitted to central by way of the aforementioned cable. Central in turn calls the substation nearest X and gives his

number, said substation then making direct connection with X.

The analogy here may be illustrated by a boy who has stepped on a thorn. The nerve affected carries the message to the nearest ganglion, which, in turn transmits the same through the spinal nerve cable to the brain; this in turn sends out to some other nerve-centre the message received from the affected one; as a result the boy at once reaches down and with his fingers extracts the offending thorn. Or the stomach may be overburdened; the report is transmitted promptly to the brain, from which a general notice may be sent out to one or more nerve-centres, just as a general alarm call may be transmitted, through a dividing cord in the general office, to two or more subscribers at the same time.

This analogy carried out in detail reveals to us an extreme complexity in the arrangement and in the functions of the entire nervous system. It is sensitive to every call from the outer world, and true education but renders the structure of the brain more complicated and the delicate "telephones through which the material world speaks" more sensitive. The blind girl educates her fingers when she can no longer use her eyes; the musician directs his fingers to move with great rapidity, and, if he too live in darkness, that will prove little hindrance to his technique. So with every form of education; some part of the nervous system learns to "do mechanically," we say, or comes to

observe with quickness and exactness that which before was hardly noted.

When we realize the adaptability of the nervous system, its possibilities in degree of organization and appreciate that the nervous tissue is the most delicate in the body and possesses little reparative power, we wonder that it can be kept at all in a healthy state; when we reflect that it is upon the perfect integrity of the fine adjustment of this slender and intricate organization that the healthy functional action of every other tissue of the body, even to that of the most insignificant secreting gland, depends, we are in a position to estimate the extent to which our physical as well as mental well-being is under its control. To increase the marvel, we have only to learn that Nature has seen fit to make what have been termed the master tissues of the body, the brain and spinal cord, dependent for their own vitality upon a blood supply which comes to them through arteries which, for the most part, are what are called end-arteries, or arteries which have no communication with one another—a plan which means almost inevitable death to these parts when the arteries break down or become occluded (Courtney).

We have gained in this cursory way some conception of the wonderful mechanism of the human brain, its adaptations as well as the risk from its impaired usefulness. Let us, then, study how its hygienic conditions may be preserved and its greater efficiency secured.

In this purview there are three chief factors to consider: heredity, environment, and education. In late years not so much influence has been attributed to the dark side of the question of heredity as the fatalists of former generations gave it. The great change that environment and education may bring about in the individual has become recognized and has assumed larger proportions.

Man, the highest of animal creatures, is not indeed exempt from the physiologic laws which govern the lower orders. Differing as he does from these in the possession of the higher type of intelligence, in the capacity for forming and comprehending abstract ideas, and most of all in the presence of a moral nature and sense, he is yet amenable to the general organic laws by which all animal natures are governed. But there is this difference between the man and the brute—both equally inherit the nature that is transmitted to them for good or for evil; but in the one—the brute—the act follows immediately on the impulse, there is no reflection, no knowledge of good or evil; therefore is the brute the predestined slave to his organization. In the other—man—the impulse due to organization may be equally strong; but judgment and the still small voice of conscience, and his innate sense of right and wrong, constantly and surely intervene to keep him from evil—constantly and surely, until deadened and blunted by continual disregard and habitual indulgence.

Herein consists man's responsibility, and the very possibility of virtue, that whilst the brute acts strictly according to his organization, man, equally urged by his, may act according to a higher law. The passions and appetites are doubtless much keener and more difficult of control in those who inherit them from a line of ancestry who have never checked them, but in whom vice has been accounted a glory and a virtue.

It is much easier for some who inherit a placid, even temperament, with no strong emotions, to be outwardly virtuous and orderly, than for those just mentioned; but all have it in their power. Habitual selfishness, disregard of the rights or feelings of others and immorality, may reduce man nearly to the level of the brute; the vicious act may seem to be due to irresistible impulse, but the perpetrator is not the less culpable for that. He who wilfully intoxicates himself that he may commit a murder is still a murderer, and one of the deepest dye of criminals. Life to all is a warfare; to some it is much more severe than to others; but all may fight the good fight, and all may attain the reward. None are born with a constitution incapable of virtue, though many have such a one as may well make life one long struggle against the power of temptation (Elam).

One of the encouraging features of the problem is the effect of environment. However much the child may have been hampered through his parents' ignorance, or through inherited weakness,

the surroundings of life will have a great effect upon his mental condition. Nor does this mean that unlimited wealth and foreign travel are necessary to his well-being.

That a narrow outlook on the world, with limited means of gaining knowledge—that a contracted sympathetic nature, with well-developed tendencies toward finding wrong in everything—that such conditions of life result in narrow views and in a one-sided development is very obvious. It must be a strong mentality that will seek to overcome such disadvantages, and indeed a fine appreciation of the Beautful, that in such limited surroundings will note the secrets of Nature, or perceive the God-likeness of character that always exists in some form not far from any one of us. Such mentality and such appreciation are found in the rare spirits of every community; the form in which such spirits dwell may be rugged or unattractive, but they who are in trouble know them, and know that these will not forsake any in distress. These are the souls that find life worth living, and inspire confidence and hope in those about them.

But how often do we find such natures the exception, while the many fall a prey to their surroundings. In the many the emotions play upon but a few of the strings of life, which, from constant usage, fail to respond; or the strings may lose their timbre, and respond with an unhealthy, morbid tone that is very trying because of its con-

stant jar and jangle in the score of daily living. Such natures are the sharp, cruel, unforgiving ones; they see from but one point of view in religious, political, or family interests, and insist that theirs is the only correct viewpoint. The result is an unbalanced condition of the personal equation—extreme developments in a very few directions and extreme weaknesses in many others.

The sociologic influences being different, the life would have been much broader; the little things of life would have been of less importance; the sympathetic nature would have been sensitive on many sides. Broader, kindlier feelings, more general interests, and a happier life would have resulted. For the offspring there would have been a different nature with a different home influence. Where kind hearts and sympathetic natures guide the family life, where sharp criticism and heartless fault-finding are unknown, there child-life is greatly favored. Where the training of the early years is regarded as a sacred trust, even though mistakes be made, there does the after-memory cling with most tenacious hold, and the motives then installed are longest-lived.

Again, in our later years the immediate home surroundings have much to do with our highest success in any position in life. If conditions are such as to harass and annoy at a time when we should be relieved from care, it is but a continued drumming on the same strings, that must of necessity, break the sooner. In our present-day living

it is a difficult matter to keep the family-life simple and plain; and yet it may be a much less complicated condition than it is in many homes where a very different life would be planned did the responsible members of the household realize the surety of the fatal result, in their own home, in the destruction of many years of health, and of life itself. In the home where wealth abounds the father is usually a burdened man; cares multiply; the great responsibility that comes with riches cannot be shaken off, and while in their latter days the viands served on his table do not turn to gold at his touch, they become almost equally indigestible when taken into the stomach, in which the condition is wholly abnormal because of anxiety and worry. The mother and daughters of this family are restless and worn with social duties, so that for the household there is little chance of health or of long life. In homes of less abundance there is frequently the struggle for higher social position; and again the physical vitality, the interests of life, and the sweetness of home are offered up on the altar of social ambition. In too many of the homes of the middle class does the stress of the bread-winning, together with the desire for the higher intellectual life, or for the amusement or luxuries of people of wealth, produce a constantly hurried and strenuous existence that bodes ill for health and usefulness.

We would not urge stagnation or lack of ambition, but in the hurried life of our time we must

choose the things most "worth while," and surely first in these is the daily, quiet little talk with one's soul and with the Maker of all, and second comes the sweetness and rest of the family hour. When this is habitually neglected, a strong and helpful influence is lost to the entire family, and many regrets are stored up for after years when such an hour can no longer be. The simpler life, with time for the cultivation of family interests, the lessening of the burdens, the lessening, too, of the families' regrets that come when the earthly life of a burdened one is ended—all this will far outweigh the value of the higher social recognition of those who care only as rivals.

Continued worry and anxiety destroy nerve force, therefore brain force, therefore healthfulness of mind and body, as does no other agency.

In close pursuit come the results of a monotonous, treadmill life, with little of interest in it. Thousands of lives are doomed to such an existence, and here are found those who go down in despair in large numbers. Where acquirement of skill leads to better position there is an interest added that keeps the days bright and the mind on the alert. Where personality can be put into work there is always an opportunity to make work enjoyable.

The most humdrum life, touched with the high lights of contentment and happiness, and an altruistic desire to make the best of its surroundings for the happiness of those about, makes always an

attractive picture, with its dark background, and is a constant inspiration to many more than has the painter of the picture supposed; and by way of earthly compensation he, the artist himself, is saved from the worst of illnesses—a diseased mind.

Whatever the surroundings of life, in continuous work it is advisable to change at times the work of the brain, to relieve the constantly used mental channels. Recreation, with the original division of the word *re-creation,* is necessary in the life that is to serve for prolonged usefulness, and that the taxed functions may be revived, absolute rest should occasionally be given to them. Frequently the most successful plan is to put some other mental associations into active service, but in this individual interest must be accommodated. Many will find the greatest benefit to follow from a change of work, at least a change of activity, while others prefer amusement or excitement, and too often the tired mother asks for idleness only. For the time her ideal of happiness is to reach a day in which the duties are all done, and she may sit and rest. Fortunately the busy one would soon weary of idleness, and a different form of recreation would be found.

The one requirement of recreation is that it is pleasurable. Without this, half the benefit is lost. A change of people and of objects and interests for a little season will do more toward freeing the daily-used part of the brain from its constant wear than can any other means, so that for the tired

home-body, or for one with a monotonous round of duties, the frequent outing is urged. For the man weighed down by constant business cares an emotional or an exciting entertainment is desirable, while for one engaged in emotional work an entirely different type of living should be substituted for the recreation period, and even the daily life should know its season of quiet and calm. All that is required is that the usual work of the brain be broken up for the rest-period, and that a substitute be furnished that will prove of sufficient interest to attract the mind, without effort, into new lines.

It is a familiar fact, with those who have to do professionally "with the mind o'erthrown," that the vast majority of insane people come from the uneducated classes. Ignorance and insanity walk very frequently hand-in-hand. Educated people as well are found, of course, among the mentally affected, but those comparative exceptions do not invalidate the general statement that the large mass of insanity in civilized life is found where ignorance most abounds. We cannot but regard it as a significant fact that, while one-eighth of the population of the United States is of foreign birth, one-third of all the insane belong to this class. To a very large degree, ignorance together with poverty has been a heritage to this people. Their ideas, habits, and customs are unlike our own; in fact, they have been born and bred in a different state of society. Is it surprising that in the process of transplanting, many of these immigrants

prove incapable of bearing the trials and exigencies incident to their existence in the New World? Disappointed in not finding the elysian fields in America, as their fancy pictured they would, and disheartened by difficulties that meet them on every hand, these untrained and untutored "defects" drop out of the ranks because they are unequipped for the march.

Need we seek further for proof than that which is established by these facts alone, that in the practical operations of social forces, education, to a large extent, is capable of dispelling the clouds that denote the morbid mind; and that with ever increasing strength she will continue to raise up barriers against insanity, until the latter shall be compelled eventually to link itself with ignorance in an inseparable bond of fellowship.

Formerly high percentages of the insane came from country districts—a result of the lack of mental life, the monotony of the work, and isolation from companionship. But already the statistics have changed, and the next few decades will show a different condition. The network of railroads, trolleys, and telephones over our country, as well as the motor car, has brought this life in touch with all the world; magazines and newspapers are in all homes throughout the country districts; and while the work of farm life is both hard and confining, contrivances for work have removed much of its drudgery. Individuality in the way of planning and beautifying is more and more recognized

and remunerated; and one result of all this has been to transfer the high percentage of insanity from the country to the crowded, ill-fed, ill-ventilated districts of the city, and to certain manufacturing and mining districts, where there is only mechanical labor, and where long hours and physical weariness make a healthful mental life impossible.

Neurasthenia, softening of the brain, and various nervous diseases are found in those who work in excitement, or, worse still, who live in alternating periods of excitement and dullness. The speculator and the actor give to their brains seasons of intense excitement without being at all aware of overstrain. In worry, not work—in excitement, not calm intellectual labor—lies the greatest peril. Nevertheless the calmest intellectual labor may become excessive toil, and most men have to perform their brain work under more or less excitement. It is therefore essential to study how the greatest amount of labor can be performed with the least possible strain or injury.

A third factor, an encouraging one, is the influence of education; encouraging because within the control of society and of the individual to a far greater degree than either heredity or environment.

The influence of education and its special effects on the general health and happiness is a force that reaches farther than most of us suspect. Quaint old Dr. Holmes said: "There are people who think

that everything may be done, if the doer, be he educator or physician, be only called in season. No doubt, but *in season* would often be a hundred or two hundred years before the child was born, and people never send so early as that."

Peter Sterling, when complaining that his wealthy college friend outclassed him in brains as much as in social position, was answered thus: "My ancestors have been brain-culturing for three hundred years, while yours have been land-culturing, and of course my brain moves quicker and easier than yours. I take to a book by hereditary instinct, as a duck to water; while you are like a yacht, which needs a heap of building and fitting before she can do the same. But you'll beat me in the long run, as easily as the boat does the duck."

We cannot go back the hundred or two hundred years, but the mother's training of her own character will do much for the child before he comes. The calm, strong, self-contained, self-denying character; one that needs neither excitement nor stimulant, being free from fits of depression; one that requires not narcotics to soothe excited nerves, because there is enough self-control to hold in check the nerves, even in extreme conditions; a woman truly temperate in food and drink, and temperate also in that which is equally important, in desires and thoughts and actions, need have little anxiety for the happiness of her child, for in whatever position in life his birth may place him there will

be opportunities sufficient for finding or making "good times" for his childhood; and if in addition he be wisely guided in his early reading, in his opportunities for observation, and, later, in the development of his judgment—fortunate indeed is that boy.

We consider in this connection those only who have enough or more than enough of this world's goods to free them from want. Where hunger holds the lash over the family circle, the gentlest nature is apt to grow harsh. But while a few great men have had to struggle up from such homes, it is good to know that in the home where the strong, kind, loving nature presides, seldom does hunger present her gaunt form. It may be a home where all are busy with daily duties; but true economy—that is, a judicious spending, especially in small things—and freedom from a constant desire for outside amusement, will do much toward keeping a family free from anxiety and hunger, even though the income be limited.

In such a home will there be a judicious mental training. Full well we know that education does not entirely consist in the course of study obtained either in schools, colleges, or universities. It is a great factor in the sum total, but in all the ramifications of society, we are receiving and imparting instructions. The mass of the people today are being educated by the daily press, which in its turn not only moulds public sentiment in its leading articles and editorials, but chronicles day by

day the lessons of human experience from the chief magistrate of the land down to the lowliest citizen, as seen in their words and deeds, which have, like pebbles thrown into water, a reflecting and a reacting influence upon the whole community.

As much as can be added to this in the way of educational advantages will, of course, be given by wise parents. All the world knows that every educational opportunity gives force and power to the life of the individual, provided the work required be done thoroughly.

Another important end in upward-building is the moral education.

In speaking of the importance of the education of the will, and of the formation of correct habits of thought and living in early years, Dr. Carpenter says: "It is that period of each life, when the youth is first left to his own direction, and has to make his own choice of the principles which are henceforth to be the guide of his life, that the value of a resolute determination to turn to the right and keep straight on is the greatest; and it is only the established habit of self-direction and self-control that can give real steadfastness to a resolution, real force to a determination. And thus we may truly say that the power which the will of any individual can exert in a great crisis is the resultant of his whole previous life, being proportional to the degree in which he has habituated himself to keep the spontaneous activity of his mind under volitional control, instead of allowing

himself to be the sport of his intellectual vagaries, the slave of his passionate impulses."

In the historically truthful account of Coriolanus, which was more to be censured—the self-willed, passionate son, or his mother, haughty Volumnia—is still a question with critics. And when we consider the other side of the story, and see the noble, gifted, victorious son fall because of his uncontrollable self-will and violent temper—all the hopes of his mother and his wife and his child destroyed by his once too often giving vent to his intolerant nature—we know not which appeals more to our pity—the destruction of the magnificent possibilities of that life, or the grief of the stricken mother who long before must have realized her own influence and responsibility in the cultivation of such a spirit, and who must at last have been aware, as was Shakespeare, that "no single experience can deliver the soul from the long habit of passionate egotism, but only a long and earnest personal struggle."

Lack of inhibitory or will power is often due to the defective training of the young, especially in those numerous instances wherein children are permitted to give free rein to every desire, to the gratification of every wish; or, if curbed at times, it is not made a matter of constant training of the child's character, but an occasional show of parental authority which does no permanent good, and soon destroys the respect of the child. Such parents are criminal in the careless treatment of their

children. They supply food and shelter and clothing for the careful development of a body, and neglect the far more important development of the mind. After six or eight years the child is turned over to a corps of teachers for mental and moral culture, and the responsibility for the after years is simultaneously transferred to these instructors.

But no amount of later teaching can balance the injury of those early years. The willful child will be willful still. The impatient child has the long, hard lesson of patience to learn before he can successfully give his attention to other duties. Nor can parents neglect their own constant influence and training through the second decade of a child's life without laying up for themselves future heart-aches.

The physical, mental and moral parts of a child's nature must be trained together and in harmony, that is, in accordance with the laws that govern them, if his education is to be marked by the symmetrical development that is so desirable.

If a tendency to bodily frailty or to mental weakness be inherited or acquired, the child should be taught early the best methods for his own physical development, and the means by which he may become strong. Too much time cannot be given to impressing upon the young mind the desirability of a strong, active body, and of its quick and sure response to demands made upon it. Every encouragement should be given, and the child should be made to recognize his own responsibility in his

development. Children are susceptible to this training and learn quickly to watch for and appreciate their own increase of strength and muscle. But such training must be given judiciously. The encouraging side of the case must always be emphasized, else the child may come to think of himself as an invalid, and thus a great barrier be put in the way of his improvement.

Work or exercise is necessary to physical development. Likewise an incentive to a sufficient amount of mental exercise should be supplied. This can be done with or without books, as the case may require. Later in life mental application may prove a remedy in disease, and tends to exert a conservative influence upon the healthy body. But do not make such demands upon a weak or diseased nervous system in childhood. Wait for a sufficient basis of physical strength. The entire being must be considered as a whole; the brain not over-stimulated at the expense of the body, nor physical training forced beyond due bounds. A general yet keen interest in the world about is extremely beneficial.

The child's nature thus opens wide to outer influences, and as the true altruistic principle broadens the man's mind and renders his nature gentle and sympathetic and earnest, so does it broaden the child's nature, saving him from the mistakes of narrowness, and giving him early the pleasures as well as the benefits of a life interested in the great and good things of the world. Or putting

it in another way: the danger of one-sided development must never be lost sight of. The child who is inclined to be selfish and willful, encouraged by mistaken kindness, becomes determined and obstinate in his own wishes, finally intolerant of others, and lays up for himself a life of disappointment and unhappiness. Not infrequently does this furnish the sharpening of the opening wedge for melancholia, or other forms of mental disease.

The impulsive temperament, extreme likes and dislikes, eccentric notions of fear, should all be dealt with gently but firmly, and so far as is possible should an even, self-controlled temperament be developed. Patience, faithfulness, and a respect for the rights of others should be most carefully taught. By such training is furnished an escape from unhappiness as well as from disease, and the life is free to develop in interest, in power, and in usefulness.

Habits are formed so early and so readily that they should be seized upon as a means of making life easier. James, in his Psychology, says: "The great thing in all education is to make our nervous system our ally instead of our enemy. It is to fund and capitalize our acquisitions, and live at ease upon the interest of the fund. For this we must make automatic and habitual, as early as possible, as many useful actions as we can, and guard against the growing into ways that are likely to be disadvantageous to us, as we should guard

against the plague. The more of the details of our daily life we can hand over to the effortless custody of automatism, the more our higher powers of mind will be set free for their own proper work. There is no more miserable human being than one in whom nothing is habitual but indecision, and for whom the drinking of every cup, the time of rising and going to bed every day, and the beginning of every bit of work, are subjects of express volitional deliberation. Full half the time of such a man goes to the deciding, or regretting, of matters which ought to be so ingrained in him as practically not to exist for his consciousness at all."

Nor may we lose sight of the true end of symmetrical development. The beautiful pear tree in my neighbor's yard is shapely; by day it supplies shade for the window; by night its leaves whisper a quiet message of peace; but the season that it fails to produce its burden of luscious fruit, that year is it a disappointment to the household. The symmetrically trained life must produce year by year. There should be an increase of mental power; a quickness, and concentration of attention; an increase in discrimination and judgment; habitual control of attention and thought; volitional control of the emotions to a marked degree.

Nor do we ask the impossible in expecting this. The child who has been well "rooted and grounded", physically and morally, is not blighted by every adverse wind of criticism, nor stunted by a seeming lack of appreciation. His immediate surround-

ings in the way of family help and training are favorable, and he has only to grow to be both strong and symmetrical. And if blessed with an ordinary amount of common sense, as I have noted children with such training always are, the results above enumerated are only natural. Why should this general development not take place? If the brain-centres, which are the seat of memory, or reason and volition, are not stirred into action by the hand of education, they will remain as unproductive and as unfruitful as a soil which may be rich in all the elements of vegetable growth, but yield nothing so long as it is untouched by the farmer's plow. The soil of the mind, like that of the field which lies fallow, must be cultivated in order to become productive. In the ordinary mind but few areas are in use. But if instead many areas be cultivated carefully the harvest must be a development of latent mentality that so far has marked but a few unusual minds.

In this connection James says: "Let no youth have any anxiety about the upshot of his education, whatever the line of it may be. If he keep faithfully busy each hour of the working day, he may safely leave the final result to itself. He can with perfect certainty count on waking up some fine morning, to find himself one of the competent ones of his generation, in whatever pursuit he may have singled out. Silently, between all the details of his business, the power of judging in all that class of matter will have built itself up within him as a

possession that will never pass away. Young people should know this truth in advance. The ignorance of it has probably engendered more discouragement and faint-heartedness in youths embarking on arduous careers than all other causes put together."

A wise teacher has said that a child in the first decade of his life discovers that he has certain powers of intellect; in the second he seeks to find out just what those powers are; and in the third, to learn how he may best use them.

Favored indeed, is the child who finds his powers free from congenital weakness; and thrice favored the one whose decades of discovery are guided and encouraged by faithful, judicious, and conscientious parents. And here lies our hope—that the day of interest and intelligence in this matter has come. Parents cannot be more conscientious than were our own; but the intellectual advantages of the present day in this special line are infinitely greater; and if only parents are wise in the application of this knowledge, another generation must begin with most advantageous conditions.

VI.

SKETCHES.

To His Insane Sister.

"If from my lips some angry accents fell,
Peevish complaint, or harsh reproof unkind,
'Twas but the error of a sickly mind,
And troubled thoughts, clouding the purer well,
And waters clear, of Reason; and for me
Let this my verse the poor atonement be—
My verse, which thou to praise wert e'er inclined
Too highly, and with a partial eye to see
No blemish. Thou to me didst ever show
Kindest affection; and wouldst oft-times lend
An ear to the desponding, love-sick lay,
Weeping my sorrows with me, who repay
But ill the mighty debt of love I owe,
Mary, to thee, my sister and my friend."

Charles Lamb.

SKETCHES.

Age — Adolescence

AGE plays an ordinate part in producing insanity. Certain periods of life are productive of distinct forms of mental disorder. Life in this respect may be divided into the following epochs: (*a*) childhood; (*b*) puberty; (*c*) adolescence; (*d*) maturity; (*e*) climacteric; (*f*) senility. The three first are the stages of development, the two next are stationary periods, and the last is the stage or period of decline.

Adolescence is the period between puberty and maturity. In the male it extends from the sixteenth to the twenty-fifth year of age, and in the female from the fourteenth to the twenty-first year. It is a physiologic period, which, begun in puberty, goes on to full development. Physically the body attains its growth, and the mind by the end of the period has reached practically its normal development. This period is a critical one to the youth; many not mentally equipped break down in it.

Exorcism — Emotions — Good Practice

The therapeutic history of insanity forms an interesting chapter in the care of the insane. As in other departments of medicine, it has been based

on preconceived notions of the nature and causes of insanity. In the middle ages insanity was generally regarded as a "possession" of the Evil One, who was supposed to enter into the body of the victim, and literally to take possession of his spirit or mind. Under this belief most barbarous means were used, not purposely to inflict pain on the subject, but to exorcise the evil spirit. Even to this day in semi-civilized countries this belief obtains. In the reports of the modern hospital for the insane at Mt. Lebanon, Syria, may be found accounts, described by eyewitnesses, of these harsh methods which in their severity resulted often in the death of the poor sufferer. We can scarcely credit a state so despicable as this, in which superstition leads to acts revolting in the extreme. Instances are cited of chaining an insane person to a rock in a dark, damp cave, and there leaving him with little or no food or clothing, to perish by neglect; in other cases, no less shameful, the victims were branded on the back of the head with a figure of the cross with a red hot iron.

Just as numbers of sensations simultaneously experienced blend into one perception, so do numbers of kinæsthetic sensations blend into one feeling. And, further, just as complexes of perceptions result in ideas, so do complexes of feelings result in emotions. Feelings are comparatively simple, and accompany sensations and perceptions; while emotions result when there is active thought

with movements of ideas. We thus find that the element of an emotion, like the element of an idea, is always a sensation; the distinction between the two being that the sensational elements which enter into perceptions and ideas are referred to the external objects, while the sensational elements which enter into emotional complexes are referred to the organism. Feeling and emotion are peculiarly personal. We feel that the external world has no share in the experience.

It has long been considered good practice to dissuade mental patients from conversing upon their disease. "Conversation upon melancholy," says Dr. Johnson, "feeds it;" for this reason he advised his friend, Boswell, who was subject to it, "never to talk of it to his friends, nor in company."

Stimulation of Sensory Centres and Nerves — Dr. Lettsom

In spite of the great specialization of function of the sense organs and nerves, the character of the sensation seems to depend mainly upon which brain-centre is finally stimulated. If a sensory centre is stimulated centrally through diffused excitation, the sensation will be exactly similar to those externally stimulated. Moreover, if the centre or sensory nerve is artificially stimulated through touch, electricity, heat, or chemical action, the result will be the same.

All the sensory centres and nerves of special sense respond to stimulation by contact, heat, electricity, or chemical irritation; but each responds with the sensation which, as a rule, results from stimulation of its sense organ by the usual form of external stimuli.

For example, if the eye be closed and the optic nerve or visual centre be stimulated by electricity, a light sensation will result; if the ears be shut off from external stimulation, and the auditory centres and nerve electrically stimulated, a sound sensation will be experienced. Any stimulation of the optic nerve or visual centres, from whatever source, results in a light sensation; any stimulation of the auditory nerve or centres results in an auditory sensation.

Central stimulation of special sense centres is, however, only effective after these centres have become habituated to responding to external stimulation. Should a child sustain a fatal injury to the eyes before this habit has been formed, no amount of central or artificial stimulation would produce light sensations. This fact seems to indicate that the specialization of function is dependent in the first instance upon the action and nature of external stimuli; and that later when the specialization is established the centre is incapable of responding in any other than the habitual way.

There is extant an odd, ludicrous rhyme, probably containing more humor than truth, of the

celebrated Quaker physician, Dr. Isaac Lettsom, one of the founders of the London Medical Society in 1773:

"When folks to me for aid apply,
I physic, bleed and sweats 'em;
If after that they choose to die,
What's that to me? I. Lettsom."

An Adventure

The life of the asylum physician is attended by unusual risks. I have known of a number of doctors who have lost their lives through the violence and treachery of insane men, and a much larger number who have been in the same way the victims of unguarded assault.

One day I was escorting a young woman to the bedside of her sick husband. While passing through a quadrangle to the ward entrance a dangerous patient, who looked like some powerful plantigrade creature, suddenly appeared round the corner of the building with a base-ball bat in his hand. This man I had repeatedly avoided, not on account only of his reputed ferocity, but because he had the delusion that I was a Russian spy whom it was his business to annihilate.

He was about a hundred paces away, and came towards us on a run, with his weapon uplifted for the attack. Placing my charge behind me, I faced what appeared certain death. It is a magnificent test of a man's courage—to face a mob or

a madman. I will cut a long story short. At the critical moment help came very unexpectedly.

I was glad of the experience. One comes out of a sobering ordeal of this kind like metal from the refiner's fire.

Exercise — Contagion of Hypos

The insane are quite disposed to be inactive, and are liable to become poisoned by a process of autointoxication in which the natural excretions of the body are not properly eliminated. In this manner the poisonous waste of tissue disintegration becomes diffused through the circulation, manifesting its presence by well-marked symptoms of ill health. Exercise is not only the best agent at hand to assist nature in throwing off the toxic products which accumulate in the blood, but also in giving vigorous tone to the system by a healthful use of all its members.

Not alone does physical culture indirectly improve the condition of the minds of our patients, by benefiting their general health, but its effects upon the mind itself are direct and potent. It serves as a mental discipline in which all the functions of the mind are aroused and stimulated into healthful activity. In a wider sense, then, than our fathers realized, does the injunction find its significance, "by the sweat of his brow shall man live."

The culture of the higher, as well as the lower energies is accomplished by the regulated activity

of their functions, precisely as the muscles of the athlete are developed by exercise; so, in like manner, impairment of function is restored by judicious application of this principle to the methods of treatment. In many forms of mental deficiency, the brain-cells, which are the seat of memory, reason and volition, can be stirred into normal action by well-directed efforts, which will tend to put off the day of degeneracy, or, under favorable conditions, hasten that of convalescence.

"The contiguous atmosphere of a hypochondriac like that of a typhous patient, may, in a certain sense, be said to be impregnated with contagion."

"The reference which has been made to the contagious quality of mental depression, is by no means intended to prevent an occasional or even an habitual association with the afflicted, when we are able by our society and sympathy to comfort or relieve them."

"There is," he says, "an antiseptic power in an active benevolence which counteracts the putrescency of melancholy; and has, in some instances, proved an antidote even to the gangrene of despair" (Reid).

St. Suaire

The credit attached to exorcism of "demoniacal possession" is set forth in the writings of Wierus, who wrote about the middle of the seventeenth

century. The charm of music and the excitement of profound emotion were some of the means used by the priests in these times. The scenes enacted annually at the celebration of the feast of Saint Suaire at Besançon were famed for the great number of demoniacs, as they were called, who resorted thither to be cured.

Pinel gives a graphic description of these rites: —"In the presence of an immense crowd of spectators, who were elevated on a spacious amphitheatre, the pretended demoniacs were brought forth guarded by soldiers. The priests, in their official habiliments, proceeded with great gravity to their exorcisms. From a distant part of the church, and concealed from view, were heard melodious notes of martial music. Upon a certain signal, a flag stained with blood, with the name of Saint Suaire inscribed upon it, was brought out three different times, and hoisted amidst the acclamations of the astonished multitude and the roaring of cannon from the citadel. Upon the minds of the credulous spectators a solemn impression was thus produced, and they cried out, with the utmost of enthusiasm, 'Miracle! Miracle!'" He added that some of the insane persons were actually cured by this strong emotional impression made upon their minds.

Idiots-Savants — Lord Chesterfield — A Short Life

Idiots-savants is a term applied to persons mentally defective who have some special aptitude

wonderfully developed. It may be music, calculation, memory for dates, numbers, and a certain variety of facts. "Blind Tom," a musical genius, belonged to this category.

Lord Chesterfield speaks, in one of his humorous essays, of a lady whose reputation was not lost but was only mislaid. In like manner could one say of a man who has recurrent attacks of excitement that he has not lost his senses, but that they were temporarily laid aside.

The idea of "a short life and a merry one" may appeal to some folks, but it can never be realized. Whatever shortens life is calculated also to make it miserable. "There is no process by which we can distil life," says Reid, "so as to separate from it foul or heterogeneous matter, and leave nothing behind but drops of pure defecated happiness."

Value of Training Schools for Nurses — Compulsion

The question is often asked: "Is a training school a benefit to a hospital for the insane, and is the training of an asylum school, with its necessary limitation for practical experience in the care of physical illness, of advantage to the pupil?" The affirmation is not far to find. It cannot be disputed that a better class of applicants is generally attracted to the field of insane nursing, if a

liberal training is assured to them. As a consequence the moral and intellectual standard of the nursing staff is noticeably higher in those institutions which maintain a training school. From the physician's standpoint the advantage is made apparent by the increased skill with which the daily attention to the patient's condition and symptoms is conducted, and by the greater accuracy and scientific value of the reports written by the nurse trained to appreciate the significance of her observations.

On the other hand, the value of the training to the asylum nurse herself is equally certain. The demand for competent service in the field of nervous and mental diseases is constantly increasing, and there is no branch of the art where the opportunities are more promising, provided the material is of the right sort. But it requires a certain combination of qualities, by no means common, to render a nurse successful, and herein lies the advantage to those who have pursued a system of instruction in the asylum school; for these qualities which are developed by this special training tend to make the possessor of them indispensable, not only in the art of nursing, but in any chosen vocation. Tact is one of these qualities. Christina Rossetti wrote: "Tact is a gift; it is likewise a grace. As a gift it may or may not have fallen to our share; as a grace we are bound either to possess or acquire it." Had she known, she could have justly added that nowhere may be found a

school for the attainment of this rare virtue quite equal to the discipline to be gained by the care of the mentally sick. To humanely and efficiently meet the exactions in the care of the insane calls for a high order of character and no mean ability. She who performs this duty with fidelity obtains a reward in the development, sure to follow, of all that is best and strongest in her own nature. There must be judgment to meet sudden emergencies, and promptness to decide; sincerity in word and act, to win the patient's confidence; the exercise of kindly sympathy and tact that may wisely guide and control, without antagonizing, the troubled and suspicious mind. The habitual display of these qualities can scarcely fail to have a broadening and elevating influence upon the developing character of the nurse, and favorably affect her entire future.

Compulsion. These acts are not those that arise from normal motive and desire, but seem to the patient to be forced upon him by a will outside of himself. As a rule, the patient struggles against the morbid impulse. He often cautions those about him, and adopts measures to prevent harm to others. The accomplishment of the act is accompanied with a feeling of relief; and having, as he does, a clear insight into the nature of the act, it is followed by chagrin and remorse.

If these compulsions are resisted or interfered with they give rise to certain symptoms, which in

extreme cases constitute a true crisis. The patient feels weak, trembles, becomes dizzy, perspires, and finally yields, to find that at once all these symptoms disappear.

Emotional Disturbance — "Sam" — "Under a Tub"

Emotional disturbance is one of the first and most pronounced symptoms of mental disease. It may indicate simply a deadening of intellectual capacity, which leaves the field of consciousness clear for the play of the emotions; or it may indicate a diseased condition of the emotional centres, their intense action impeding the action of the ideational centres, and thus crowding out the intellectual portion of consciousness.

The celebrated Dr. Samuel Johnson complains at one time that he could not hear the town clock distinctly; and at another states that he clearly heard his mother, who had been dead many years, calling out "Sam."

Cowper, in one of his letters to a friend speaks thus of his infirmity: "I have a perpetual din in my head; and though I am not deaf, hear nothing right, neither my own voice nor that of others. I am under a tub, from which tub please accept my best love."

Amusement and Occupation for the Insane in Ancient Egypt — Dreaming and Nightmare

Some modern writers, ignoring the records of the past, seem to consider that all attempts to employ, occupy, and amuse the insane are confined to a recent period not exceeding ten, fifteen, or at most twenty-five years. Observe the description given one hundred years ago by Dr. Pinel of the wise regulations of this nature which constituted in part the celebrity and utility of the priesthood of ancient Egypt, before the Christian Era: "Effort of industry and of art; scenes of magnificence and grandeur; the varied pleasures of sense; and the imposing influence of a pompous and mysterious superstition, were perhaps never devoted to a more laudable purpose. At both extremities of ancient Egypt, a country which was at that time exceedingly populous and flourishing, were temples dedicated to Saturn, whither melancholics resorted in crowds in quest of relief. The priests, taking advantage of their credulous confidence, ascribed to miraculous powers the efforts of natural means exclusively. Games and recreations of all kinds, were instituted in these temples. Voluptuous paintings and images were everywhere exposed to view. The most enchanting songs, and sounds the most melodious, 'took prisoner the captive sense.' Flower gardens and groves, disposed with taste and art, invited them to refreshing and salubrious exercise. Gaily decorated boats sometimes transported them to breathe, amidst rural concerts, the purer breezes

of the Nile. Sometimes they were conveyed to its verdant isles, where, under the symbols of some guardian deity, new and ingeniously contrived entertainments were prepared for their reception. Every moment was devoted to some pleasurable occupation, or, rather, to a system of diversified amusements, enhanced and sanctioned by superstition. An appropriate and scrupulously observed regimen; repeated excursions to the holy places; preconcerted fêtes at different stages to excite and keep up their interest on the road, with every other advantage of a similar nature that the experienced priesthood could invent or command, were in no small degree calculated to suspend the influence of pain, to calm the inquietudes of a morbid mind, and to operate salutary changes in the various functions of the system."

"Dreaming and nightmare give you the best idea of an insane delusion, and are the nearest physiological counterparts of it" (Clouston).

Guilty Conscience — Fortunes of War

Horrible as are the sanguinary scenes of a battlefield I doubt that any can be found more awe-inspiring than that depicted by the unfortunate victim who, in a "whirling gulf of phantasy and flame," vainly attempts to escape from the "horrible shadows" and "unreal mockeries" that torture his imagination with the dread of guilt. I

TORTURE OF MIND.

remember a singularly distressing case of confirmed insanity following upon a long, sad, and eventful career of vice and immorality. The patient had lived, for fifteen years, a most extraordinary life. He had been accused (but not legally convicted) of almost every description of crime. He eventually left the country and resided for a long time in an unfrequented part of Australia. He subsequently returned, but, discarded by his family, he abandoned himself without reserve to all kinds of debauchery, vice, and profligacy. He was publicly charged with acts of forgery, perjury and theft; and it is believed that he was guilty also of a barbarous murder.

In early life he squandered, in a reckless manner, a fortune belonging to his wife, and then deserted her and his family of three children. During the whole of this period he exhibited none of the ordinary symptoms of insanity. At the age of 50, however, he became clearly insane, and the type of his mental disease was a most painful one. There evidently existed, associated with his mental derangement, occasional lucid, and apparently sane reminiscences of his former vice and crime. He had a perfect horror of seeing anyone enter the room in which he was; and if a stranger were introduced, he immediately rushed into a corner, where he would crouch like a wild animal, in an agony of despair. He then held up his hands in the attitude of distress, and with an expression of terror on his countenance, literally screamed:

"Away, away! Don't come near me! I don't know you! Why do you stare at me? I am not the man! I am innocent!—falsely accused! Turn him out! I wont speak to him! I will not confess!"

When contemplating the condition of this wretched man, one is forcibly reminded of the scene in Macbeth, where the gory, spectral image of Banquo is conjured into existence by the guilty conscience of the king.

A nation's life is made up in the aggregate of individual existence; and the philosophy of history teaches that out of the conflicts of men is built up, for good or evil, the character of a nation. In looking back into our own lives, we see in a minor degree to be sure, though none the less real, the same sort of conflict ever going on; and into our characters are built the products of the warring elements of our natures, in accordance with the fortunes of war.

Mental Hygiene — Health-lift

Let me remind you that the natural periods of life are separate and distinct from one another, and that their duties and prerogatives should be confined each to its own term of years.

"Nature to each allots his proper sphere."

Childhood, youth and manhood have well-defined limits, which precocity should not override.

In this restless age, youthful impatience may be exemplified in the delight of girls to come out in long skirts, and of boys to don the coat with tails. It is this eager haste to advance too rapidly on the part of the young that should be resisted by parents and teachers, and St. Paul's example cannot be too solemnly enjoined upon them, to retain in childhood the habits of a child until man's estate is reached.

A growth which partakes of the mushroom character means early maturity, and in turn premature old age. This unyielding law is operating in all animate nature. In the vegetable kingdom the slowly-growing forest tree is the sturdiest. It takes deepest root, it lifts its head the highest, it has the toughest fibre, and in hardihood defies the storms of centuries. So it is with races of men, and also with individual lives—deferred maturity means strength and longevity.

There is in every being a certain proportion between the time of its coming to maturity and that of its natural death. Some of the forms of animal life are born, run their span, and die in a single day, while others outlive man's allotted term of years. Each according to its kind has a graduated scale of existence, and humankind is no exception to the rule.

Physiologists place the maturity of woman at 22 years of age, and that of man at 25.

The brain, also, is governed by this general law of proportionate progress; but the periods of

mental development, maturity, and decline do not correspond with those of the other parts of the body.

The mind reaches its ripeness, on an average, five years later than other portions of the human frame, and as a consequence the brain is more tender and susceptible in early life than, for instance, the muscular system. The chubby-faced infant in the nursery, who passes his wakeful hours in a ceaseless round of action—kicking, squalling and eating (blessings on him) with all his baby force—is the picture of physical strength, but his feeble and semi-fluid brain grows slowly, as it is needed but little at this stage of automatic life. The brain gets behind in the race until the general growth of the child has advanced somewhat, and self-preservation and other necessities demand the guidance of its controlling functions.

The conservation of brain-force is a wise provision, when taken in conjunction with comparative growth and decay. It insures full vigor of the mental powers long after the knees have become weak, the hands have shown signs of tremor, and the shoulders have assumed the stoop of age.

Speaking of shoulders, let me relate a reminiscence. In schoolboy days the writer was engaged in a course of physical training after the manner of the Winship system. The "health-lift" weight of one thousand pounds to which he had atttained, consisted of an iron-bound dry-goods box, laden

with hardware, and suspended from the second story by an iron bar, which rested on the edges of an oblong hole cut in the floor. The lifting apparatus was an iron yoke, and by suitable handles was attached to the crossbar of the box below. One day, while alone, in taking his customary lift, the iron bar slipped from its bearings, after the weight had been raised from its bed, and caught below the floor, holding him a prisoner with ten hundred pounds on his shoulders, which he feared, meant death when strength gave out. This experience he has often recalled when witnessing incurable mental disease, dragging its victim down to earth, and likewise when he has seen the shoulders of age, under the heavy weight of years, drawn by irresistible power into, as it were, the opening grave.

Seventy-year Clocks — Tuberculosis

"Our brains," says the Breakfast-table Autocrat, "are seventy-year clocks. The Angel of Life winds them up once for all, then closes the case, and gives the key into the hand of the Angel of the Resurrection. Tic-tac! tic-tac! go the wheels of thought. Our will cannot stop them; they cannot stop themselves; sleep cannot still them; madness only makes them go faster; death alone can break into the case, and, seizing the ever-swinging pendulum, which we call the heart, silence at last the clicking of the terrible escapement we have carried so long beneath our wrinkled foreheads."

It is generally taught by psychiatrists that tuberculosis has a close connection with the neuroses (nervous diseases) and with insanity. Tuberculosis and nervous diseases occur in members of the same family, either separately or, as frequently happens, combined in the same individual.

VII

TO MAKE A VALID WILL.

"Rigorous law is often rigorous injustice."

TERENCE.

"There is no debt with so much prejudice put off as that of justice."

PLUTARCH.

TO MAKE A VALID WILL.

JUDGING from the many legal contests of wills, none of the laws of the land have caused more perplexity than those which presume to regulate the uncertain relations between the testamentary act and the objects of its bounty. In the disputes which have arisen between the exponents of medicine and law, the question of testamentary capacity has become confusion worse confounded, owing to the absence of any universal criterion.

Medical men assume that it is their function to interpret the various phases of insanity, and that on their opinions the decision should depend which determines the limits of the responsibility of the patient. Lawyers, on the other hand, belittle such claims of physicians, and assert that it belongs to them to say what the law calls insanity. But over and above all comes the *ipse dixit* of the judge. With an eye single to "sacred precedents," he gives utterances to judgments that frequently betray more of the darkness of the middle ages than the progressive tendencies of modern thought. Some of the theories of these legal lights appear to be not only founded on injustice and superstition, but are absurd in their practical application.

The purpose of all law should be the approximate attainment of perfect justice. But is it not

obvious that many judges and jurists have greater concern for perpetuating some ancient rule of law than for enforcing pure justice and equity between their fellow-men? They are generally such sticklers for time-worn usages that they make burdens doubly hard to bear, and carry the rulings of their predecessors to such extremes as would doubtless astonish the original enunciators of them. They would rather aid, it would seem, in continuing a rule, which at the present day might appear to all others unjust, than strive to ameliorate the harshness and sometimes cruelty which too often found place in the jurisprudence of a former age. The days have gone by when private rights should be destroyed by the mere fiat of a judge. We are wearied with the technicalities and old doctrines of law. The people demand natural justice without unnecessary refinement.

All law should be founded on common sense. When a judge, however, learned, departs from this principle, he treads at once on slippery ground. Statutes, in many instances, by reason of their generality, must need work hardship to certain litigants. It has been found impossible to enact specific laws which will insure absolute equity in every case arising under them. It is evident, then, that it should be the duty of our courts, in the exercise of their high prerogatives, to substitute for the strict letter, in such cases, the spirit of justice in the law, and not to use sophistry to sustain technical points, regardless of the equity of the case.

Yet it is urged that all law is founded upon justice and common sense. This may apply to portions of it, especially when first propounded. But many of its rules have since been sadly perverted. That most of the decisions of the present day are sustained by precedents cannot be denied. That no one but a lawyer can find anything that is fair, right, and equitable in a portion of them is equally certain. It is encouraging to note, however, that several of the highest courts in the different States are breaking away from subserviency to the practice of bygone times, and are softening to a great extent the rugged rules of former incumbents of the bench.

These remarks are especially applicable to testamentary capacity. Every person, having property to dispose of, should make his will when mind and body are in a sound and healthy condition. It is doubtful if, even in the most normal states of the mind at the hour of approaching death, the intellectual status of the individual is full of clearness and vigor. At such a period one is in ill condition wisely to dispose of the accumulations of a lifetime. Nevertheless, too many, through some innate dread of death, postpone this duty until life is rapidly drawing to a close, when the physician, the minister and the lawyer are hastily summoned.

As many wills have been made under precisely these conditions, the act by degrees has come to be regarded by those given to superstition as one clothed with great sanctity. Indeed, until recent

times, he who attempted to set a will aside, made under such circumstances, was deemed guilty of little less than sacrilege.

A prominent physician and writer, after giving the formula, as laid down by numerous authorities, which is, to say the least, somewhat startling to "the inexpert," that "a man may be capable of making a will, and yet incapable of making a contract, or to manage his estate," says, in reference to an important decision of the Supreme Court of Maine, that "this case, recently decided after a prolonged litigation, is calculated to excite serious reflections in the minds of all who are accustomed to regard the testamentary act as too sacred to be disturbed by any other than the strongest evidence of incompetency."

In this case the testator, who was partially demented, becoming piqued at some trifling matter, willed all his property from his only child (a daughter) to a distant relative. Upon trial at *nisi prius,* the jury found for the daughter, and pronounced that the instrument produced was not a legal and valid will. Yet the medical authority above quoted declares this as "an extraordinary verdict." But the Supreme Court of Maine, be it said to its commendation, greatly differed from him in this opinion.

It would seem as if this humane physician might better have bestowed his pious sympathy upon a child brought up in comfort and luxury, who may have been left destitute by the mere

whim of an eccentric parent, than to have vented his spleen upon the court in deviating from an unjust rule.

It clearly appears that by far too liberal rights have been granted to testators. The Romans, who prohibited this injustice under their civil law, were wiser in this respect than ourselves. But it is gratifying to learn that the legislatures of several of our States are materially restricting this power. There is no question that a man who has made his own fortune and who dies without leaving a wife, children, or other immediate relatives, should be permitted to dispose of his estate according to his own pleasure. But when he leaves a wife, who in many cases has aided him in the accumulation of his wealth, or children for whose happiness and prosperity, and indeed for whose actual being he is responsible, such obligations should not be lightly swept aside. As generally in the case of the wife, he should be legally restrained also from diverting his property from his children to other sources, except for the best reasons—reasons that would be pronounced sufficient by a competent court jury of equity.

If this be a proper view of the question, how much more should the testamentary dispositions of a person, whose mind is partially impaired, be carefully scrutinized if in any particular they deviate from what is strictly right? In one instance, a man who had for a long time been called, at least, eccentric, and who was clearly of unsound mind at

the time of the signing of his will, disinherited his only son, who had always been to him obedient and faithful, and had substantially assisted him in making his money, because the son, becoming embarrassed financially, had made a just and honorable assignment of all his effects for the benefit of every creditor, instead of unfairly and dishonestly conveying his property to the testator. Yet the courts sustained the will! Comment is unnecessary.

The primitive rule that no man should be counted a natural fool, and, therefore, incompetent to make a good will, who was able to measure a yard of cloth, or to name rightly the days of the week, or to beget a child, is still very generally adhered to by our courts. The presumption is nearly always in favor of the testator and the will; the burden of proof upon him who has the temerity to impugn it. A noted English judge says: "When the testator is known to possess this necessary capacity (although of such low degree) it is sufficient to establish his will, no matter how arbitrary its provisions or how hard or unequal may be its operations on his family." In other words, a man incapable of buying or selling a horse, a cow, or a cord of wood, may, under the influence of pride, pique, remorse, superstition, or of a young and second wife, cruelly deprive his children of their just inheritance.

As to the influence of remorse, I recall a case (in which I knew some of the persons concerned)

decided years ago by the Court of Appeals of the State of New York.

The testator, although a church member, and ostensibly a farmer, belonged to the worst class of usurers. He disobeyed the laws of both God and man. The statutes against usury at the time in that State were very stringent, but he succeeded in evading them. He would delude his victims into paying all that was possible for them to do on mortgages which he had obtained or "shaved" at much less than their actual value. When his creditors were sufficiently reduced to gratify his avarice, he would take advantage of the mortgagor's condition, foreclose, and bid in the farm at half its worth. If that did not satisfy the demand, he would sue on the bond, and seize all the personal property of the farmer.

Thus he became rich; but as death approached, remorse, with all its terrors, drove him nearly frantic. He was surrounded by ministers of his own denomination, who urged him to devote his wealth, not to the reimbursement of his victims, but to increase the endowment of a theological seminary. To this intent he willed his money, thinking thereby to secure an abode in heavenly mansions. But his mercenary project was frustrated by the Appellate Court, which awarded the estate to his daughter and sole heir-at-law.

In an interesting case found in the English reports (Greenwood *vs.* Greenwood), the decision of Lord Kenyon illustrates in a marked degree

how the anxiety of many judges to sustain old precedents may lead them into much folly.

In this instance, the testator, while sick with a fever, conceived the idea that his brother had administered poison to him in his medicine with evil design. He recovered from the attack, except that the delusion never left him; and it showed itself in his will, by which he disinherited his brother, who was his sole next-of-kin. Lord Kenyon took special care to distinguish between an act founded on a prejudice, however unreasonable and false in fact, and an act based on an insane delusion. He held that the will in question, if it originated in the former motive, could not be impeached. After remarking that the conduct which the deceased displayed toward his brother was nearly unaccountable, he continued: "But if his mind remained entire, if he had new raised-up prejudices against his brother, though upon improper grounds, yet if they were such prejudices as might reside in a sound mind . . . hard as the case may be, it is better that a thousand hard cases take place than that we should remove the landmarks by which a man's property is to be decided."

What can be said in defence of such absurdity? This great judge seems to have taken the view that courts of equity were not established to maintain the just rights of the people, and to bestow on them the beneficial results of a wise and liberal jurisprudence, but instead for the sole purpose of upholding the ancient landmarks of law, whether

just or unjust. Better that "a thousand hard cases should take place" than that these sacred, ancient, and revered "landmarks" should be disturbed! Better that thousands should suffer unjustly than that these antiquated rules should be modified in the shifting conditions of progress! Furthermore, be it remembered that this opinion was given in a case when the prejudice first arose under an insane delusion, which, as the lawyers themselves admit, furnishes sufficient grounds for impeaching a will. Yet, although founded in an insane belief, if it be such a prejudice as a sane man might hold, the will must be sustained! Can one doubt that such sophistry is liable to cause contempt of court in a sense not usually applied?

All authorities are agreed that no person of a totally unsound mind can execute a valid will; but under what is termed partial insanity, the decisions are exceedingly various as to what constitutes "a disposing mind and memory." On the one hand, certain judges have adopted the formula which an able exponent expresses as follows: "The prevalent idea is that in order to constitute testamentary capacity, the intellect of the testator should be in a perfect state of integrity and possess all its original force and vigor." Some have been guided by the condition that the testator must have sufficient mind to comprehend what property he possesses, what disposition of it he wishes to make, and who are his heirs-at-law. Other judges, however, have shown a tenacious proclivity to adhere

to the antiquated, illogical precedents already pointed out.

Writers on medical jurisprudence have defined the various phases of a diseased mind under the heads of insanity, mental derangement, dementia, imbecility, partial insanity, monomania, etc.; but these terms, as has been pertinently said, "simply describe a sliding scale of mental disorder or enfeeblement, expressing different degrees of deterioration, and are subject, therefore, to whatever interpretation the mind of the observer may choose to give them."

It has been impossible to find any single test of mental disorder, as medical authors have long since confessed, notwithstanding the persistent efforts of the courts to adopt certain criteria from time to time, which have given way to other standards equally unreliable. Insanity is a disease, or rather a class of diseases, of such variable phases that no symptom, or group of symptoms, is of sufficient diagnostic value to establish its existence. Consequently, testamentary capacity, when the question of insanity is raised, should be determined by the evidence deduced in each particular case. Any single standard by whose imperfect gauge a judge may seek to measure the intelligence of men is as arbitrary as the bed of Procrustes.

It has been held that a person suffering from partial insanity may make a valid will, provided his mania does not relate to or have a bearing upon the bequests that he desires to leave. This

at first may seem just, but it cannot be safely followed indiscriminately. Even in the insanities most limited in their manifestations, such as monomania, for example, where the symptoms may be confined to a feeling of well-being and a single delusion, it may be found upon examination that the entire nature of the subject is tinged with an hereditary taint or a constitutional mental warp which has influenced for evil, perhaps, his whole life.

Just as the nervous system is the central unifying organ of the body, so all the varied mental phenomena are brought together into a unity in consciousness. The processes of the brain being intimately associated and co-ordinated, it is not difficult to conceive that, as derangement of portions of its mechanism is apt to involve, to a greater or less extent, other parts, so it may be attended with disturbances of the normal co-existing operations of the mind. The ancient belief that the human mind is infinite in its powers, and, to a certain degree, divine, seems almost justified in the light of the past in the magnificent achievements and the marvellous productions wrought by the hand of man. But, while possessing such illimitable force, it is, on the physical side, sensitive, delicate, and subject to numerous dangers. A slight injury or disease of certain regions of the cerebral substance is liable to turn its purpose from the direct course into eccentric channels. Again, a perturbation, whatever be its material substratum, manifested in a morbid state of the attention, or

in a defect of the relations of objective and subjective consciousness, or in the logical apparatus, may deflect the mental vision out of the plane of healthy thought and action.

In former years, that noble champion of human rights, Henry Brougham, while Lord High Chancellor of England, held, in opposition to his predecessors, radical views. He insisted that the human mind is an unit, and that any impairment of a single faculty is an impairment of the whole intellect, and destroys the testamentary capacity. In this doctrine he was sustained by several distinguished judges of England; and for a while it appeared as if the rule of Lord Brougham would be generally adopted. But other Lord Chancellors, unfortunately, have been guided by older decisions. Some of our American courts, be it said with praise, have followed what we cannot but regard as the better practice. If a certain part of the brain functionates unsoundly, who can say to what extent the remainder is being undermined and laid waste, so as to permit the insidious enemies, passion, prejudice, delusion, revenge and superstition, to gain abnormal possession of the citadel?

Finally, the following conclusions are submitted:

1. That the harsh, cruel, and unjust decisions of the old English courts respecting wills should cease to enter into our system of jurisprudence.

2. That a parent should be prohibited, as by the Roman law, from disinheriting his own children, except for ample reasons, the soundness of

which should be satisfactory, under the law, to a court of justice.

3. That the standard of testamentary capacity should be sufficiently broad to permit of each case being tried upon its merits.

4. Lastly, that no person unfit to make a contract by reason of any tincture of lunacy should be allowed to dispose of his property by will; and, further, that the rule should be construed with especial strictness when the bequest deviates from that which is fair and equitable. Our general statutes, controlling the disposition of the estates of those dying intestate, are wise, just, beneficent, and far superior to any provisions devised by one of unsound mind.

VIII.

STRANGE CASE OF SILAS PRONGE.

"He sleeps well who knows not that he sleeps ill."

MAXIM.

"Not poppy, nor mandragora,
Nor all the drowsy syrups of the world,
Shall ever medicine thee to that sweet sleep
Which thou owedst yesterday."

OTHELLO.

STRANGE CASE OF SILAS PRONGE.*

In the latter part of January, 1887, a stranger by the name of A. J. Brown made his appearance in Norristown, Pa. He rented a small notion shop, with adjoining lodgings, on the main street of the borough. He straightway stocked and opened his store, consisting mostly of candy and stationery. Nothing odd was noticed by the townsfolk with whom he came in contact, either in his appearance, speech or actions. He gained for himself the assurance of a quiet, unobtruding man, whose past life, however, seemed obscured in a certain degree of mystery. He attended church, and moved in and out among his associates in a neighborly way.

On the morning of the 14th of March, about six weeks after his advent, he awoke in bewilderment and fright, as from a trance. "Where am I? Who am I? Who are you?" he exclaimed to those who, startled by his outcry, had come to his assistance. After recovering somewhat from the shock of his rude awakening, he disclaimed the name of Brown, as well as any knowledge of his surroundings. At first he was thought to be insane, but his clear statements and rational manner

* Originally described by Prof. William James, this remarkable case came under the notice of the writer, who was consulted when the somnambulism passed off, and the patient regained his normal state. For obvious reasons the true name of the subject is not used.

soon gained for him a sympathetic belief in his sanity. He stated that his real name was Silas Pronge, and that his home was at G——, a small town near Pawtucket. Upon the arrival of his nephew, who had been summoned by telegraph, these facts respecting his identity were verified. Subsequently the following history of his life was obtained.

Silas Pronge was a native of New England. At the time of this episode he was about 60 years of age. His immediate family consisted of a wife and two daughters. He was a carpenter by trade, and for twenty-five years and more he had been a lay preacher by profession. His native mental endowment was good, and he had always been a man of unblemished character and habits. His hereditary record was not obtained, although there were indications that he inherited a neurotic constitution. Nothing was noted out of the ordinary in his life history until he was about 30 years of age, when he experienced a pronounced crisis, which was interpreted by himself and friends as a visitation of Providence. After this attack suddenly his character and mode of life completely changed from that of an acknowledged atheist to that of a devoted Christian worker. It was thus related of him: "One day, while walking in the open country he perceived a voice speaking to him. It said, 'Go to the Chapel! Go to the Chapel!' 'To what chapel,' he inquired of his invisible monitor. 'To the Christian Chapel,' was the reply."

Now, the carpenter was on unfriendly terms with the pastor of the Christian Chapel, and he exclaimed with much feeling, "Before I go to that place I hope God may strike me deaf, dumb, and blind." Instantly, it is narrated, he fell to the ground, enveloped in darkness and silence, and without the power of speech. Upon his restoration to his senses this significant event culminated in his conversion, as before stated, and in his adoption of the vocation of itinerant preacher. For more than a quarter of a century he followed this calling, doing a great deal of missionary work. He became well known over a large section of New York State and western New England. Early in 1887 he had abandoned his preaching, settled down to a quiet life at home, and had taken up anew his old trade of carpentry. One day, while living at G——, Rhode Island, he, without any warning, disappeared from home. After he had gone it was discovered that he had drawn, before departure, a considerable sum of money from the bank in which he had an account. His whereabouts was unknown to his family, until the identity of Brown, the notion merchant of Norristown, merged into the personality of Pronge. During his experience in the candy store he had not any recollection of his previous life; and afterwards his memory of the abnormal phase, prior to his awakening, was similarly clouded.

Not least in interest in the case are the experiments of Prof. James, of Harvard University, who

fortunately persuaded Mr. Pronge to be hypnotized. In repeated hypnotic sleep, to which he readily succumbed, he very fully recalled and related the experiences of his abnormal state in the person of Brown. While prosaic enough, his account was circumstantial, and fully in accord with the evidence gathered from other sources. Being apprehensive, he said, that some trouble was in store for him at home, he boarded a street car for Pawtucket, and went thence to New York City. One night was spent at the Grand Union Hotel, and the next day he went on to Philadelphia. Spending two days in the latter city, he changed his lodgings to a boarding house, which he located at a certain number on Filbert Street. Then, seeing an advertisement of a small business for sale in Norristown, he went there and set himself up in trade.

Such was his story when he was in the hypnotic state, and in that state, which is common in all somnambulistic conditions, he could remember nothing of his former or normal life. On the other hand, while in his waking state, he had no recollections of the Brown state subsequent to taking the horse car to Pawtucket, nor could he tell why he had undertaken the journey. The Filbert Street boarding house had been torn down at the time he gave his hypnotic narration, and was replaced by a mercantile establishment, but some of its former occupants were found after some delay. They fully brought to mind the man Brown, to-

gether with the circumstances of his arrival at the house, and his departure to go into business in the adjoining town.

Prof. James states that his Brown personality was a weak, insipid, diluted extract of his normal character. He was hypnotized many times, and attempts were made by all sorts of artifices to effect at least a partial fusion of his Brown state with his normal state, but these experiments were unfruitful. The only result was that his hypnotic memory grew more and more feeble, until finally he could recollect only the faintest outlines of his abnormal state.

Cases like this of Mr. Pronge have been comparatively rare in medical literature. Not until recent years has the subject been intelligently understood, and the peculiar manifestations of the disorder adequately described and explained.

In order that the reader may comprehend the rationale of this mental phenomena illustrated by this case, it is necessary to glance a moment at the normal workings of the human mind, as it relates to it. The train of thought which is called the "field of consciousness" is composed of sensations, ideas, and volitions more or less bound together into an organized system. This complex of bodily sensations, together with the other content of mind, forms the basis of our personality. While this may be true of an ideal mind, it is only partially true of the ordinary mind, much less of the mind of many weaker persons. In them is not to be found a uniform stream of thought flowing on

towards a definite end like a river. This tendency to split or separate into isolated fragments pursuing their own individual course is technically called "dissociation of consciousness." There are many varieties of dissociation, which it is not our intention to fully consider. A normal example is the ability to carry on two distinct mental trains at the same time, such as directing one's steps in walking or dancing and maintaining a spirited conversation.

The special form of dissociation in Mr. Pronge's case is termed "double personality." In such cases there is a sudden and complete transformation of the personality. The individual loses, as we have seen, all knowledge of his past life, calls himself by a strange name, and is possessed with entirely novel ideas, feelings, and tendencies. One author has happily compared the sharp change of dissociation states with the abrupt shifting of scene, witnessed in moving picture exhibitions. He also cites the example of the dramatic story of Dr. Jekyll and Mr. Hyde, although it is probable that Mr. Stevenson used these allegorical figures to illustrate the conflict of good and evil in human nature. Albeit it is a striking fac-simile of the genuine article of dual identity. The number of personalities is not always limited to two, but may consist of a number, each with its own distinct character, and set of memories and ideas.

IX.

EX LIBRIS.

"His burning eyes, whom bloody streakes did stain,
Stared full wide, and threw forth sparks of fire,
And more for rank despite than for great pain,
Shaked his long locks, coloured like copper wire,
And bit his tawny beard, to show his raging ire."

FAERY QUEEN.

EX LIBRIS.

The Undue Ratio of Insanity — Deep unto Deep

It may not be disputed that there are few inquiries of public policy that press more urgently for satisfactory solution than the undue ratio of the insane, inasmuch as it involves the fate of future generations. As one writer says: "It is an imperial question of the first importance, for upon the way in which we deal with it depends the future of our race, and upon the future of our race depends the place that we are to hold among the nations in the years to come." In regard to insanity, as in the other diseases flesh is heir to, a proper regard of the rules of health is mandatory, while a violation of natural laws brings inevitable punishment. Nature is, indeed, an inexorable mistress, reaping where she has not sown —or, rather, let us say, an impartial judge, giving victory alone to the strong. It is the observance of a proper code of health and by adherence to temperance in all things—nay, "temperance in temperance itself"—that insanity may best be prevented. Hence, it is in prophylaxis and not in therapeutics—in prevention rather than in treatment—that the true remedy must be sought.

There should be but small degree of patience, let it be said in passing, with the crude methods of sterilization which have been proposed from

time to time by ill-advised persons who would seem, by advocating anything so barbarous, to be lacking in any quality of sympathy consistent with humane reform.

It would be futile in this limited space to attempt a thorough review of the causes that have resulted in the wide spread of insanity throughout the civilized world, for the conditions relating to it are much the same both in Europe and America. Of all the causes that have contributed to this phenomenal increase of late years, heredity, by common consent, holds the largest place. Especially do we know that a potent antecedent is intemperance in the use of alcohol, and in the same category may be named those other excesses of a similar kind which sap the vitality of the nations. Much also has been written about the "stress and strain" of modern living, accompanied as it is by the precipitous strife for wealth and place, with the attendant disappointments and failures. These and other well-known causes in the production of insanity can scarcely be over-estimated.

In a pure state of barbarism, it is said, insanity does not exist. There, all are placed on the same dead level of mental sloth, and many of the disturbing agents which tend to unbalance the mind in civilized life are lacking. It does not follow by any means that barbarism is the true remedy for insanity. Society is now in its developmental stage—a constructive age—wherein the friction of every day's life is very great, and the struggle for

mere existence with some, and for worldly gain with others, converts living veritably into a "battle of life." Undoubtedly the time will come, however, when civilization shall reach a point in which there will be little or no insanity, just as it is now absent among savages. The former will be above the line of its operations, as the latter is now below it. It is in the intermediate stage of strenuosity that its manifestations are active. In the sociologist's chat of the future, our own times will be denoted the insanity belt, where most frequently

"Sovereign reason,
Like sweet bells, jangled out of tune and harsh!"

It is related of Dr. Worthington, a noted asylum doctor, that he was on one occasion conducting a small party of friends through the beautiful grounds of his hospital, when two voices were heard in the distance coming from the opposite extremes of the ward building, similar to "the crowing of cocks at early morn." Nothing could be made of the crazy babble. One of the party more curious than the rest ventured to inquire what it meant. The doctor with a twinkle replied, "Deep calling unto deep."

Results of Inebriety — John Gilpin

Dr. Dana, the specialist, sets forth these uncompromising facts of inebriety.

The conclusion is reached that the duration of

life among habitual inebriates is about fifteen years in confirmed cases, although exceptional ones may last a maximum of about forty years. In general, it is said that hard drinking can rarely be carried on for more than twenty years, and it usually brings the victim to grief at about the age of forty. Referring to persons who drink to excess, both as to quantity and frequency, it is estimated that it takes ten or fifteen years to bring on dementia or insanity, during which time it is calculated that the inebriate consumes about two thousand gallons of intoxicants. Two thousand "drunks" is set down as the maximum limit in any ordinary inebriate experience. The favorite combination for hard drinkers is beer and whiskey.

The poet Cowper, who had attacks of melancholy, could not bear to hear his humorous story of John Gilpin read to him in one of the paroxysms of his disease. It was to his "heavy heart" what Solomon aptly compares to pouring vinegar upon nitre.

Bodily Movements — Molten Lead

A complete survey of bodily movements involves notice of the sensori-motor mechanism. The bodily organism serves both for the reception of sense impressions through its sense organs, and for the communication of motion to the external world. It is, therefore, not only a sensory mech-

anism, but a motor mechanism as well. The sense organs, the sensory or afferent nerves and sensory centres in the brain, or other centres in the nervous system, form the sensory mechanism for conveying impressions inward from the external world. While, on the other hand, the nerves of motion, or motor nerves, and fibres running from the brain and other centres to the muscles, in which they terminate, serve to stimulate to action the contractile energy stored up in them. This latter combination forms the motor mechanism. The motor mechanism thus forms a medium for reaction upon the outer world in co-ordination with the sensory mechanism for receiving sensations from without. The two form together the sensori-motor mechanism.

In language expressive of extreme mental anguish, Lear is made to say:

> "I am bound
> Upon a wheel of fire, that my own tears
> Do scald like molten lead."

Organic Sensations — Lamp-cask

The sensations aroused by organic stimuli are of so much less importance for intellectual development than those dependent upon external stimuli, that the latter usually dominate consciousness, standing out in clearness and detail. The organic sensations fuse and form an indefinite background of consciousness. When from any cause the external

stimuli lose their power over consciousness, the organic sensations take a more important place. They then become clear and distinct and everything relating to the personality is greatly exaggerated in consciousness. The same result might follow from a state of abnormal excitation of the centres for organic sensation. In such a case the organic sensations would by their intensity force their way to the centre of consciousness and so crowd out all other sensations.

Thus, either a sluggishness of the processes of sensation or apperception, or hyperesthesia of the organic centres may result in an abnormal exaggeration of the personality.

An ancient philosopher remarks that it is far better that any literary work should smell of the lamp rather than of the cask.

Suggestibility — Insane Disguised as Beggars

By the term suggestibility is understood a state in which the reactions of the patient are controlled by external impressions or suggestions. Its most perfect expression is *catatonia,* in which the limbs assume and retain indefinitely the position in which they are placed. Sometimes it is manifested by the patient repeating words or phrases said in his presence—*echolalia*—or actions done before him—*echopraxia.* Suggestibility is a characteristic in most forms of mental enfeeblement. It is the type

of the child's mind, whose thoughts are governed by external impressions, and who yields to the domination of the most diverse influence, good or bad. Many offenders belong to this class.

In Shakespeare's time mild insane men were permitted to wander about the country in the guise of beggars. He has described this state, in the character of Edgar, in King Lear, when he makes him adopt the resolution of counterfeiting such a person.

"I will (says Edgar) take the basest and poorest shape,
That ever penury, in contempt of man,
Brought near to beast. My face I'll grime with filth,
Blanket my loins, tie all my hair with knots,
And, with presented nakedness, outface
The winds and persecutions of the sky;
And with this horrible object, from low farms,
Poor pelting villagers, sheep-cotes, and mills,
Sometimes with lunatic bans, sometimes with prayers,
Enforce their charity."

Impulsion — Irritability — Blood Tumor of the Ear

Acts of *impulsion* are distinguished from those of *compulsion* in that they do not seem to the patient to be influenced from without, but are the direct expression of a sudden overwhelming impulse arising within him, which gives no chance for reflection or resistance. They are found in the most varied morbid conditions. Here belong "pressure of activity" in mania; the strong tendency to kill

in transitory frenzy; the excesses of dipsomaniacs; and the morbid impulses of hystericals. These acts are not controlled by pleasure or dislike; but by a blind impulse, rapid, reckless, and violent.

Irritability is a common symptom of mental disease, due to high tension of the nervous system. The condition is often aggravated by some bodily disturbance, which may be temporary in character, and one easily removed by simple means.

Blood tumor of the ear (aural hematoma) is due to extravasation of blood into the tissues of the external ear. It is very apt to occur in the insane from slight external injury. It usually terminates in a shrivelled condition of the ear, and it generally points to a chronic and incurable mental state of the patient.

Puberty — Dr. Kirkbride — Mood — Disposition

Puberty is a developmental period, a physiological one, during which the sexual function, in both the boy and girl, makes its appearance. There is not only a physical development, but a mental growth also in the individual. Some form of nervous disease may crop out at this time of life, although insanity is rare. If it arises, it does so because there is in the person a strong predisposition to it. It usually takes the form of a short maniacal attack, or a brief attack of melancholia.

Dr. Kirkbride says: "Labor, judiciously used, is one of our best remedies; it is as useful in improving the health of the insane as in maintaining that of the sane. It is one of the best anodynes for the nervous; it often, but not always, composes the restless and excited, promotes a good appetite and comfortable digestion, and gives sound and refreshing sleep to many who would, without it, pass wakeful nights."

A mood is the temporary tone of feeling.

The disposition is the prevailing mood of an individual, such as despondent, pessimistic, optimistic, contented, hopeful.

Involuntary Action

Every sensation and every thought tends to initiate some bodily movement. Those sensations and ideas which do not occupy the centre of consciousness, or in other words, are not attended to, and are not apperceived, result in a movement, unless impeded, of which we may or may not be conscious. These activities are called involuntary movements.

Involuntary action may be grouped into two classes: (1) reflex action, which is the result of peripheral stimulation; and (2) automatic action, which is the result of central stimulation.

Reflex Action. For a reflex act a sense organ must be stimulated. The excitation is then trans-

mitted by the sensory nerves to the sensory centres in the cord, medulla, or sometimes in the brain; from these centres it is passed on to the motor centres, and from these travels by way of the efferent nerve to the motor organs in the muscles, producing finally a muscular movement. Such movements, though unintentional, may or may not be accompanied by consciousness. The contraction of the muscle fibres of the iris in response to a light stimulus is always unconscious; while the movements to focus the eyes on a special object may or may not be conscious.

Automatic action is subdivided, also, into two groups, according to their development: (*a*) those which have developed from reflex acts in the course of long ages and many generations (instinctive); (*b*) those which are the products of voluntary acts during the life of a single individual (acquired).

Is Insanity on the Increase?

The question is often asked, "Is insanity on the increase?" It is one that does not lend itself readily to accurate solution, owing to many obstacles to be surmounted in obtaining suitable data. Even when registration is found to be correctly made, the results based thereon are not apt to be fully trustworthy, in consequence of so many divergent factors entering into the problem. From the tables of vital statistics it is shown in late years

that there is still a yearly increment, and that probably the maximum height of the wave has not as yet been reached. Insanity is essentially a disease that thrives best in the cities. In the denser settled communities in which the larger cities abound it has been found that the disproportionate ratio of insanity is 1 to 275 of the population. In rural districts the ratio is much less, not attaining an average below 1 to 400 or 500 of the inhabitants; while in sparsely settled districts of the West and South the ratio may not exceed over 1 to 700 or more. It is probably safe to say throughout the United States generally, and the same applies to all civilized countries, that in urban districts the ratio is 1 to 350, and in rural sections 1 to 500 of the population.

Definitions of Insanity — Character

It is difficult to define so complex a subject as insanity by a few words, or in one sentence. Burton says: "The four and twenty letters make no more variety of words in diverse languages, than insanity produces diversity of symptoms. To define it would be as difficult as the task of the Greek painter who essayed to place on his canvas the Goddess Echo, when he found that he must needs paint a voice." The dilemma is no greater than it is in some other wide and comprehensive subjects, which, also, cannot be adequately defined; among these may be mentioned poetry and life.

Briefly, the following are some of the definitions from various authorities. Shakespeare says:

"To define true madness,
What is't but to be nothing else than mad?"

Locke: "Madmen do not appear to have lost the faculty of reasoning, but having joined together some ideas very strongly, they mistake them for truths, and err as men do who argue from wrong principles."

Cullen: "A lesion of the intellectual faculties, without pyrexia, and without coma."

Combe says: "Insanity is a morbid action in one, in several, or in the whole, of the cerebral organs; and, as its necessary consequence, functional derangement in one, in several, or in the whole of the mental functions, which these organs subserve."

Conolly: "An impairment of one or more of the faculties of the mind, accompanied with, or inducing, a defect in the comparing faculty."

Morel: "A cerebral affection, idiopathic or sympathetic, destroying the individual's moral liberty, and constituting a derangement of his acts, tendencies, and sentiments, as well as general or partial disorder in his ideas."

Maudsley: "Insanity is, in fact, disorder of brain, producing disorder of mind; or, to define its nature in greater detail, it is a disorder of the supreme nerve-centres of the brain—the special organ of mind—producing derangement of thought,

feeling, and action, together or separately, of such degree or kind as to incapacitate the individual for the relations of life. Mind may be defined physiologically as a general term, denoting the sum total of those functions of the brain which are known as thought, feeling, and will. By disorder of the mind is meant disorder of these functions."

Hammond's adaptation of Cruice's definition: "A psychic manifestation of brain disease unattended by loss of consciousness."

Bucknill: "A disease of the brain (idiopathic or symptomatic) affecting the integrity of the mind, whether marked by intellectual or emotional disorder."

Regis: "Insanity, a special disease, is a form of alienation characterized by the accidental, unconscious, and more or less permanent disturbances of the reason."

Blackstone: "A lunatic, *non compos mentis,* is one who hath had understanding, but by disease, grief, or other accident hath lost the use of his reason."

The following definition, originally framed in part by one of the older writers (Ray) has been changed and modified by successive physicians, and is widely used by experts in law courts: "Insanity has been defined to be that mental condition characterized by a prolonged departure from the individual's normal standard of thinking, feeling, and acting—the result of disease or mental deterioration."

Every one's character is influenced more or less by his calling, and a doctor's in particular to a degree. The life-work of a physician is the best education for the best characters. It is of the worst for the small soul. Dr. Weir Mitchell says: "My own profession is full of temptations to yield to little meannesses. It is a constant trial of temper. It offers ample chance to win in retail ways by disparagement of others, and by flattery and appearance of interest where little is felt. The small man—what I call the retail nature—gives way to these temptations; the noble nature strengthens in resisting them."

Music — Vicissitudes

Music has ever been regarded of great efficacy in relieving the afflicted mind. Luther, who suffered from attacks of low spirits, said: "Next to theology, I give the highest place to music, for thereby all anger is forgotten; the devil, also melancholy, and many tribulations and evil thoughts are driven away."

Vicissitude constitutes, says Reid, one of the most remarkable features in the character of mental derangement. There is often in such cases, "an equinoctial condition of the mind," which is almost equally divided between "the light of joy," and "the darkness of despondency."

[redacted]

Temperament — Diathesis — Latency

Just as character is the sum of an individual's mental traits, so his temperament is the sum of his emotional traits, exclusive of all tendencies to disease.

Diathesis, or the predisposition to disease, may be defined as any bodily condition, inherited or acquired, by which the individual "through a long period, or usually throughout life, is prone to suffer from some peculiar type of disease."

The insane diathesis, so called, may be described as a constitutional inferiority, inherited or acquired, indicated "by peculiarities of function, and by tendencies to mental disorder." It is primarily based on "an abnormal irritability and excitability of the brain, with irregular evolution and unequal development of its function" (Macpherson).

The latency of the insane diathesis is found in persons of neurotic constitution, who, without observed evidences of the diathesis, transmit it to their offspring, or become insane from very insufficient causes. The non-development of the diathesis in such cases may be due to favorable conditions of life, or to the activity of another diathesis. The most common example of this is seen in the substitution of consumption (tuberculosis) for the cerebral disease.

Insane Writing — Well Born

The writing of the insane furnishes important signs, and it is usually characteristic of the form of insanity existing. It is bold and forcible in paranoia and mania; irregular with letters omitted in melancholia; it shows only unintelligible marks in the weak-minded, such as imbecility and dementia; and it is irregular and tremulous, with omission of syllables and final letters of words, in general paresis.

Sometimes patients conceal successfully their insanity while talking, but reveal their delusions and feelings in their writings.

"To be well born" is a circumstance of real importance, but not in the sense usually employed. The heir of a sound constitution, Dr. Reid remarks, has no occasion to regret the absence of any other patrimony. A man who has inherited a vigorous and untainted stamina of mind as well as of body enters upon the world with a good foundation and abundant material for happiness.

Power to make a Will — Wheel-barrow — Photisms — Phonisms

Medico-legally, the question of testamentary capacity is one that is often involved when a paretic attempts to make a valid will. Where manifest injustice, under the will, has been done, there should not be much difficulty in upsetting it. It is not

SOME TYPES OF INSANITY.

A, acute. B, senile. C, persecutory. D, grandiose.

uncommon, owing to perversion and mental enfeeblement, that a "disposing mind" is absent, as manifested by an incapacity of the testator "to understand substantially the state of his family and of his affairs; the disposition of his property as made by the will; and to intend to make such disposition." There is, further, a strong tendency in the pliant attitude of the paretic to a weak yielding to undue influence. One could seldom find, even in the confiding docility of senile dementia, a more subservient trust than these cases often exhibit toward the influences that surround them.

The working force at a State Hospital were grading the grounds with wheel-barrows. One of the number used his barrow upside down, a subterfuge to shirk work. A trustee standing by said, "Jim isn't so crazy after all."

Color-hearing (sound photisms) is a peculiar modification of sensation. This consists of a power certain individuals have of receiving a sensation of color at the same time as a sensation of hearing when sound strikes the ear. High notes generally produce in them sensations of brilliant colors, while low notes those of dark colors. The colored image is seen as belonging to the person or instrument producing the sound. In some rare cases may be found the opposite phenomenon (light phonisms), a sound being heard when the eye is struck by a color.

Mental Tests

The application of the exact experimental methods of clinical psychology to the study of the insane has proved of great assistance in ascertaining the true mental condition of patients. A schedule of tests designed to embrace, as far as possible, the whole field of the intellectual, emotional, and volitional life has been prepared and used as a guide in the examination of patients. Numbers of them are, of course, incapable of complying with the requirements of these many tests, but the very failure to respond to distinct modes of stimulation often furnishes a clue to mental conditions which otherwise might remain long undiscovered. These tests, also, often bring out many symptoms and peculiarities other than those which they are actually designed to disclose. For instance, the sensory, and also the intellectual tests, when much concentration is required, are apt to develop the latent hallucinatory state in patients subject to hallucinations, while almost all kinds of tests result in the betrayal by the patient of any incipient feeling of suspicion. Much information on the susceptibility to fatigue and on the power of concentration of the attention is also obtained through a use of the sensory tests. One patient manifested unusual acuity of hearing, but it developed during the investigation that the distance at which she could hear a watch tick was reduced by as much as one hundred and fourteen inches after two or three minutes of testing. Even after

a rest of twenty minutes the fatigue was still apparent in the shortened distance at which she could hear. This test was repeated many times with the invariable result that the ear first tested was the more acute.

For the psychologist such clinical investigation of the insane undoubtedly furnishes a rare opportunity for the study of certain discrete mental states in conditions of isolation or exaggeration, which never maintain in a normal individual; an opportunity for the study of many mental states in their purity, unimpeded by the more complex mentality which so greatly complicates all study of the normal mind. This advantage is strikingly evidenced in the realm of the emotional life. In many cases the emotional state is fixed and invariable, and far more intense than could possibly be induced experimentally in any psychological laboratory. Profound depression which lasts for months, or such an exaltation of spirit that the prospect of indefinite confinement in an asylum is powerless to dampen it, offer opportunities for prolonged observation and study of a pure emotion, uncontaminated by any mingling of surprise, fear, and the numerous other elements which complicate any transient emotions artificially produced in the laboratory (Dr. Town, late of Hospt. Staff).

The Transformation of the Ego*

In normal life the consciousness of a distinct personality is never lost, excepting occasionally in

* See "Strange Case of Silas Pronge," p. 151.

sleep. In many pathologic states, however, it is subject to abrupt change. In such cases there is sometimes a sudden and complete transformation of the personality. The individual loses all knowledge of his past life, calls himself by a strange name, and is possessed with entirely novel ideas, feelings, and tendencies. These two personalities alternate, and in some cases the second persists for longer periods than the original one. The number of personalities is not limited to two, but may consist of a number, each with its own distinct character and set of memories and ideas.

It has frequently been noticed that changes in the organic sensations are in the insane accompanied by peculiar illusions concerning the bodily parts affected. Many instances are given: A patient of this type imagined that his legs were made of glass, and he carefully guarded them for fear that they would be shattered; a woman thought that a child was lodged in her throat; a man that a part of his tongue was liable to slip down his throat and choke him to death; another that his throat was permanently closed.

Eccentricity

Persons who indicate by their conversation and manner a deviation from the conventional standard of mental reaction, but who at the same time do not transcend the bounds of common sense are said to be eccentric. This condition may be ex-

pressed in any degree of departure from the normal short of actual insanity. While not attempting to define genius, it not infrequently is displayed by eccentricity. Some persons aware of this are apt to cultivate peculiar mannerisms to delude themselves and others into the belief that great power of mind amounting to genius is a mental endowment that has fallen to their lot. We often see an example of this tendency in the youthful musician who wears his hair long, and affects certain eccentric methods to impress the public of his claims to musical genius. Eccentricity is commonly regarded as an unbalanced state of mind—an uneven development of the various mental aptitudes. While in some ways such a mind may be deficient, it frequently shows unusual ability in one or more directions. There are both "tricks of body" and "kinks of mind," the outgrowth of inheritance and habit. This type of eccentricity indicates a poor, rather than a good, mental equipment. Again, there is a pathologic form which may display itself as a borderland condition just before or after an attack of insanity.

Inhibiting Obsessions and Phobias

These obsessions assume varied forms. One of the most frequent is the "doubting mania." Its characteristic feature is the inability on the part of the patient to affirm a fact or to make a decision.

Many normal persons experience this phenomenon in a slight degree. At the borderland of doubting mania we find persons who hesitate before mailing a letter, in spite of having already several times verified the contents, the address, the closing of the envelope.

Doubt is likely to assume the form of scruples, so frequent in religious persons; a fear of profaning sacred things, of not being in a holy state of mind, and so on.

Closely related to doubting mania are the phobias, or morbid fears.

One phobia is *"delire du toucher,"* where the patient dare not touch any object for fear of contamination, or fear of contracting an infectious disease. Some patients wear gloves, and wash their hands many times a day.

X.

AUTISM OR AUTISTIC THINKING.

"I stood
Among them, but not of them; in a shroud
Of thoughts which were not their thoughts."

BYRON.

"Short swallow-flights of song, that dip
Their wings in tears, and skim away."

TENNYSON.

AUTISM OR AUTISTIC THINKING.

At the outstart it may be stated for the benefit of the general reader who has not had previous knowledge of our subject that there are two modes of thinking. One the common, every-day form, which takes into account the relation of the individual with reality, and the other which does not consider reality at all, and is the type often used by those who are subject to dreams, and who indulge in day-dreaming.

Much of the fantastic thinking of the insane is of this nature, where phantasy has full sway. It is the state of mind where one's hopes, ambitions, and hidden wishes are untrammeled by actual conditions of reality, and are free to exercise the secret longings of the soul. For this reason it is phantasy formation, and at bottom wish-fulfilling thought. This world of phantasy is set free from reality motive and governed only by pleasure motive in its wish-inspiring tendencies.

A good deal of the silent and secret thinking of the normal man is, in a measure, of the fairy-tale variety. He does not believe in the reality of his day-dreaming, but he derives comfort and consolation from "castle-building," when his hopes and aspirations have full outlet. On the other hand, the insane man believes in the reality of his day-

dreams. He does not tell a fairy-tale, he does not read one, but he lives his fairy-tale.

Prof. Bleuler, of Zürich, the chief exponent of autistic thinking, illustrates the subject by describing one of his patients. This man, an ill-favored, insignificant creature, who had never known any but the most miserable surroundings, enters a room in a country inn, goes to bed, and can only be dislodged by force, for he expects the Queen of Holland, who wishes to marry him, to arrive at any moment. Again, among the writer's patients, a young man, intelligent and of good social standing, began to evince a disordered state of mind. He developed ideas of reference; that is to say, many things he saw in the daily papers and the magazines, as well as events in his every-day life, were thought to be references to himself. Finally, he startled his family by announcing that he was the Messiah, and that he expected to marry a former acquaintance, who was to be his "queen." He also had decided upon a site for the "Holy City."

These patients are able to converse logically on other topics, and to conduct themselves like ordinary folks. They think rationally, and take account of reality only when their autistic ideas come into play. The thinking of these patients, which represents a very common type among the insane, is, of course, sheer nonsense. They imagine something absolutely impossible, and, what is worse, they believe it to be reality.

Each of us, says Bleuler, has also his fairy-tale. He does not believe himself to live it; only when quite alone and his thoughts let loose, does it come to light. He usually chooses those advantages in which he is most lacking. The process is similar to the "make-believe" life of the child at play with his toys. Directly reality regains its grasp, the plaything will be thrust back into the closet (in the brain), where it is hidden, not only from the stranger, but, for the time, from the owner himself.

Bleuler further traces the similarity of our secret thinking to the autistic fancies of the insane. Through the partly closed door of the closet an arm or head of the fairy may easily protrude. A glimpse of the make-believe fairy is seen in the color of the necktie (if I be a young man) that I select, in the extra strut as I pass an attractive girl on the street, or alight from my motor car at the hotel entrance. When I address an audience (if I be a civic reformer), receive an appointment to office, in short, whenever my aspirations are touched or my hopes favored, then the little toy imp is seen peering over my shoulder.

Berton Braley, in "The Lawless Heart,"* gives in rollicking verse a glimpse of an imp of adventure hidden in the autistic dreams of the sedatest man.

* Funk & Wagnalls Co.

"Dull trade hath bound me in its grip,
And never shall I be free,
Yet I dream of the decks of a pirate-ship
In the roll of the open sea;
I dream of the pennant dread and black
That flies at the mast alway,
As we swoop along on a Merchant's track
In the sting of the flying spray!

"Oh, I am a law-abiding chap,
Yet deep in my heart I'd be
A buccaneer with a scarlet cap
And a Terror of the Sea—
As lawless and ruthless a bandit brute
As history ever knew,
Roaming the seas in search of loot
At the head of an evil crew!

"Oh, here at home I am meek and mild,
A man with a family,
Yet I dream of deeds that were dark and wild,
And of red, red fights at sea;
And under my breath I softly hum
A stave from a pirate song,
And my throat grows parched for pirate rum—
For I have been dry so long!

"My life is ordered and shaped and bound,
And kept to its rule and line,
But my thoughts can wander the whole world round,
And my dreams—my dreams are mine!
So the old tales hold me in their grip,
And I hungrily long to be
A pirate chief on a low black ship
In the roll of the open sea!"

Autistic thought may be either conscious or unconscious. A knowledge of it helps us to interpret much morbid formation. It assists us to understand a great deal that transpires in normal thinking. By it we grasp the inner life, and see into the minds of others as could not be done by any other way. We are able to comprehend how poets shape their creations. A poet, child-like, often builds his hopes into his verse, giving the secret longings of his spirit which he could not attain by reality. We can see also how it impels customs and religion, and governs not only national but international politics.

Symbolism is a form of autistic thought. The greater part of mythology, as we know, is allegorical, expressed through symbols. Civic days, festive seasons, forces of Nature are all represented by symbols, as well as human character, and action. Symbolism in every-day life can frequently express concisely a sentiment or a truth which cannot be so well told by ordinary language, as we see in the flag, the national emblem. It helps us to picture tersely an abstract by a concrete idea.

In logical thinking we reproduce reality. Autistic thought is not bound by the laws of logic and reality. The grossest contradictions may be found side by side, as may be seen in the asylum, where a king contentedly mops the floor or washes dishes.

Savages can think as logically as ourselves in all things they understand. They know less,

therefore autistic thinking is used by them more than it is by us. Often autistic thinking seems instinctive, which is quite intelligible when we know how closely allied are the feelings and instinct. The important distinction between the brute and man is the power to create new combinations. Humanity without autism could not have developed. The health of individuals as well as nations demands a balanced proportion between the autistic and realistic function.

In delusions in general we find that desires play a great part, and delusional content is always dependent on feeling. What one wishes or fears one believes. The melancholic patient feels low-spirited, and forms the idea that he is sinful or poor. The euphoric has delusions of wealth and social position, while the irritated becomes suspicious, and imagines that others desire to injure and persecute him.

Autistic thinking in normal persons is kept within limits. When the balance between affectivity and logical thinking is upset, autism may get the upper hand; (*a*) as with children who have not enough experience to discriminate logical possibilities; (*b*) in subjects beyond our knowledge and logic, in questions of first principles, in religion, in love; (*c*) where the feelings get too great ascendancy, be they pathologic or normal; (*d*) and where the connection of associations is loosened, in dreams and in reverie.

In speaking of the value of autistic thinking,

Bleuler says: "The child accustoms himself by his phantasies to the situations of his future life; in autistic activities he exercises his power of thinking as the kitten does his hunting capacity in play. The autistic forms of thinking in religion have for thousands of years given forms to human ethics; they have created ideals which would be impossible to logical thinking—dim ideals certainly, but guiding stars towards which mankind may direct his groping way."

XI.

ABULIA OR WEAKENED POWER TO WILL.

"The blood will follow where the knife is driven,
The flesh will quiver where the pincers tear."

YOUNG.

"For full indeed is earth of woes, and full the sea; and in the day as well as night diseases unbidden haunt mankind, silently bearing ills to men."

HESIOD.

ABULIA OR WEAKENED POWER TO WILL.

THE term "abulia" designates, in a general way, a weakening or a diminution of the will force of the individual. It finds expression in hesitation, indecision, and in many forms of powerlessness, as well as in the defective energy of attention; in the normal state it is seen, for instance, in the inertia of convalescence, and in the lassitude of spring-time. This mental inaptitude has long been familiar to physicians, who observe it in various forms of mental and nervous disease. Besides hysteria, where it strongly prevails, it is common in all mental disorders in which the chief characteristic is inactivity of the mind. It is particularly conspicuous in melancholia, dementia præcox, and in the depressive types of general paresis; in some conditions of neurasthenia and psychasthenia; in the intoxication of opium and alcohol; in the retardation of manic-depressive insanity; in short, among patients generally suffering from weakness or exhaustion of the mental processes.

For the convenience of study the subject may be divided into systematized, localized, and general abulia. It is not my present purpose to go fully into these sub-divisions, but only to point out some of the salient facts as we proceed.

Systematized abulia, as the term implies, is not

a lack of will power in general acts, but in a particular act, or a system of special acts. It is not an easy task to differentiate systematized abulia with accuracy. The difficulty may be appreciated when one remembers that there are other ways by which a particular act may be suppressed, as in some instances by a fixed idea, or in others by amnesia (loss of memory).

In an elucidation of the question it is helpful to bear in mind that every volitional act contains two principal parts, *i.e.,* the sensory and motor. When an isolated act has passed out of memory, it is not easy to say which side of the arc is impaired. Certainly these phenomena "not-knowing" and "not-being-able," as they are called, are closely related, and in the normal man they are almost wholly confounded. But in certain mental conditions we are obliged to make a distinction.

A person who knows what should be done, but cannot find in his mind the means of effecting it, who has simply forgotten the way of going about it, is not identical with the patient who does not give himself the trouble to conceive the act, and makes no effort toward it. In the first instance he is amnesic; in the second, abulic. From a prognostic standpoint it is a matter of importance. As an example, astasia abasia (inability to stand or walk) is a form of amnesia of the motor images, and not a form of abulia, properly so called. Some authors believe that the "not-willing" variety is met with more frequently in the generalized abulias, and

the "not-being-able" in the systematized forms. This is equivalent to saying that the latter are generally amnesias.

Of the systematized abulias, Janet, an eminent French writer of the Charcot school, gives the abulia of sleep. This may seem odd to us, for we do not generally speak of sleep as a volitional act, or connect it in any way with the will. But nevertheless the will, according to this author, plays an important part in this function. Certain persons who enjoy a great power of will over themselves fall asleep when they wish, no matter at what time of day or night.

Napoleon was noted for his control of sleep, and his celebrated phrase is well known: "When I wish to interrupt a certain affair," he said, "I shut up its drawer and open that of another. They do not mingle with each other, and never trouble or fatigue me. If I think I wish to sleep, I close all the drawers and straightway I'm asleep." It is a familiar fact among hypnotists that sleep is suggested like any other act. This tends to show that sleep is a form of action under the control of the will, which may be influenced by our ideas. In view of the prevalence of disturbances of sleep in mental and nervous diseases, this aspect of it is not without interest. In many of these cases the difficulty of inducing sleep is very great. The root of the trouble often lies in a lack of capacity on the part of the patient to learn how to become sleepy.

When, in consequence of fatigue, the abulia is increased, we find in them also that the insomnia increases in equal proportion. Furthermore, a patient of this character cannot awaken by herself after sleep, or, being only half awake, does not seem to have the power to be wholly in one state or the other. This experience, in a mild form, is not an uncommon event, even in normal persons. Who has not found himself in the half awake state, following a night's sleep, gently enthralled by a dreamy reverie, from which he is unable to awaken until a motive idea as a stimulus calls the will to action?

The general abulias, which apply at the same time to both action and thought, are practically of more importance. General abulias of the motor type are of all degrees of intensity, from slight hesitation of voluntary acts to extreme indecision and powerlessness. This condition cannot be explained by any form of paralysis, nor can it be attributed to a fixed idea. In the milder forms such acts become painful, slow, of short duration, and are interrupted with innumerable delays. The patient takes an interminable time to dress, to sew a few stitches, or write the simplest letter. She experiences especially a great pain in coming to a decision, and in beginning any new work. To succeed in doing anything at all, these patients are obliged to divide and subdivide acts which appear to others very simple, and, notwithstanding the greater deliberation, they never succeed in doing anything of a complex nature.

One of the forms of general abulia is the intellectual type. Before considering this class of abulias I need first to recall to mind certain functions of the will.

It should be remembered that the will has not only a motor action, as applied to muscular reaction, but it is intimately associated with the production and expression of our ideas. In fact, such authors as Wundt and Bastian regard this intellectual function of the will as the essential rôle, and that its acts are only its outer manifestations. This intellectual action of the will is commonly called attention. Its principal result is the synthesis or the combining of the lower mental processes, such as sensations, percepts, memory images and so on, in such a way as to make us comprehend them. In other words, the attention acting in unison with the apperceptive tendencies of the mind gives us the "intelligence of things." It is obvious that the attention is a very important constituent of mind, and it plays an equally prominent rôle in mental disease.

For many years it has been a well-recognized fact that the feelings are the first element of mind to indicate a disturbance at the onset of mental breakdown. But it has not been generally known that nearly coincident with this change in the feelings we have in the volitional sphere a disturbance of the attention, as an early symptom in many cases of insanity. This is seen in the marked weakening of voluntary attention, and as an im-

mediate consequence the patient may become confused, restless, and maniacal. Again, one of the special functions of attention is its protecting influence on the higher mental mechanism. As we are constituted, myriads of sensations are constantly crowding in upon the sensorium. Now it is just here that the attention performs its marvelous office. It stands as a screen, as it were, defending the delicate fabric of mind from this terrible assault. Were it not for its protection, no human mind would be able for long to maintain its integrity.

When voluntary attention in the process of disease has become much weakened in an individual case, then not infrequently ensues the train of symptoms which we have described; the patient passes abruptly into a state of delirium.

The defects of attention were pointed out as long ago as 1834 by Leuret, by Billod in 1843, and by many recent writers. Guge, of Amsterdam, having seen analogous modifications of attention among children with adenoids, gave this defect the name of aprosexia (inability to fix the attention) —a name which has been so generally well received that it has been applied to this disorder of attention when occurring in mental and nervous diseases. Aprosexia in mild form can often be detected by asking the patient to read a few lines from a book or newspaper. Usually the patient, being told to read aloud, does so correctly, although with monotony, but when finished it is

found that she understands nothing that she has read. To be sure she pronounces the words clearly, and comprehends the meaning of each one separately, but the sense of the paragraph escapes her wholly.

This disorder is a particular defect of attention, and is not due to trouble of sensation or perception, or to the association of ideas in the ordinary sense. Some authors have attributed it to defective memory, but experiments with these cases prove that the trouble does not arise from amnesia. If aprosexia increases, this lack of recognition will show itself not only in reading, but in the simple perception of outward objects. This psychologic phenomenon is seen in the babble and rhyming of acute maniacal states of the insane. In them it is not usual that they fail to recognize their surroundings, and mistake for others the persons whom they casually see. Apprehensive of harm, they read into the unfamiliar objects about them agencies which portend them ill. Sometimes this trouble is shown, not in the perception of visual images, but in the perception of auditory sensations.

As I said before, the primary symptom of mental breakdown may be shown by this trouble, and as it becomes more severe the disease may pass into melancholia or maniacal excitement. When the power of attention is simply diminished a number of complex disturbances may be observed:

1. Attention is very slow and very difficult to

fix; when let alone the patient gives herself up to silent or babbling reverie.

2. When the patient is persistently urged to fix her attention, the effort is attended with much suffering, the result of extreme anxiety, which frequently produces a very severe headache. The patient who fears these headaches avoids the exercise of attention as much as possible. A young man of this class said: "When I am with intimate friends I do not try often to pay attention, I just let myself go."

3. These subjective symptoms, which occur during the exercise of attention, are accompanied by objective symptoms, such as involuntary motor disturbances, and in hysterical subjects the development of new anesthesias. In the effort of attention these patients are prone to exhaust the small amount of mental force which they possess. If she is anesthetic only on one side, she becomes so on both; the sense of smell is lost, and the visual field is contracted. Sometimes under forced effort blindness may temporarily ensue. Not only the sensations, but also the movements are neglected. In this way grimaces, tics, jerks of arms and limbs may occur, of which the person may not be aware. In the absent-minded absorption of maniacal attacks in the insane, the phenomena of echolalia may be frequently seen. It is a variety of subconscious act, which has its explanation in this defect of the power of attention.

While speaking of this disturbance of move-

ment, attention may be called to the involuntary movements that take place in children when learning to write, or in the performance of other unfamiliar acts of a complex nature. In some susceptible persons this tendency is more than usually conspicuous, showing itself in odd mannerisms and in peculiar eccentricities of conduct. It is a striking characteristic of persons of feeble mind. Anyone who has heard Blind Tom in the remarkable exhibitions of his musical talents will remember this feature in him while listening to a new score which he was expected to play at once by ear. The full vigor of his mind, being absorbed in a strong effort of attention, left the reflex actions of the lower centres unguarded by proper inhibition.

4. This very painful attention just referred to does not usually last long in abulic patients; it oscillates, ceases, returns for a moment, and after a variable time disappears. Some patients simply turn their eyes away from their work, say they cannot continue, complaining of severe headache. With others great exhaustion comes on, as they cannot do anything or feel anything for awhile. In a recent case, *D. E.*, after an effort to read for a short time, complained of pain in his eyes, which watered, and without further warning temporary blindness supervened.

The same exhaustion may become manifest, not in the senses, but in the intelligence itself. Janet tells of one of his abulic patients who, becoming

much interested in a scientific explanation she was making, was seized after a few moments' effort with complete aprosexia, from which she did not recover until the next day. In this case she suddenly stopped, fixed her eyes intently with complete immobility on the ground. She had the appearance of being deeply absorbed in thought, but she was not; she was in one of her customary crises. It is a condition of automatic reverie, supervening as a result of the total exhaustion of voluntary attention.

This phenomenon in a mild form is often experienced in the normal state of health by a person who may be more or less fatigued. Suddenly the eyes become involuntarily fixed and immobile, and are fastened on the ground with intense gaze, as though in deep thought. But it is a deceptive appearance, for the mental state is the reverse of that of absorbed attention. This automatic reverie is common at least in elderly people. The soothing influence of a cigar or pipe conduces to it; it is the state that supervenes just before one loses oneself in sleep.

There are persons, especially past middle life, who, while not particularly religious or spiritually minded, find much enjoyment in attending a Quaker meeting. The obvious explanation is that under this worthy guise they find opportunity to indulge in this pleasant form of reverie; it gives also a clue to that unbecoming habit of sleeping in meeting which gives devout Friends so great

concern. Another result of exhausted power of attention is to throw certain patients into violent attacks of motor excitement. Janet gives the case of a little boy who was sent to his physician from school because he had convulsions every time he was made to give strict attention to his studies. Bevan Lewis observed a case of general paresis that developed convulsions on being pressed to solve a difficult problem in mathematics.

Patients who have a moderate degree of aprosexia succeed finally in understanding; they form ideas of things, but they are ill formed; they lack clearness and stability; they grasp the idea imperfectly, and it soon escapes them. Hence, doubt is one of the characteristic symptoms in states of mental abulia. This fact explains the prevalence of obsessions among the nervous and insane. This doubting spirit is seen not only in the objects of sense, but it also applies to memory and fancy. These patients represent to themselves the past badly, and the future equally so. They doubt what they have done and what they are going to do. One doubts about the past, and has false remorse; another has imaginary fears; one accuses everybody of falsifying; and another accuses himself in like manner.

Finally, another characteristic of aprosexia should be mentioned. It consists in an impression of novelty in which things take on a strange or unfamiliar appearance. Objects and persons take on a strange or curious aspect, which constantly

excites their surprise or apprehension. This astonishment is often the starting point of a series of questions, and when the patient is predisposed to obsessions they get easily in this way into the nervous doubting state, termed *"folie du doute,"* or doubting insanity.

XII.

AT THE DEVIATE CLUB.

"Some men are of a very cheerful disposition, and God forbid that all such should be condemned for lightness. O let not any envious eye disinherit men of that which is their 'portion in life, comfortably to enjoy the blessing thereof!' Harmless mirth is the best cordial against the consumption of the spirit; wherefore, jesting is not unlawful, if it trespasseth not in quantity, quality, or season."

T. FULLER.

AT THE DEVIATE CLUB.

"THIS morning when grandmother descended the stairs at breakfast hour the sound of her footfall on the steps awakened strangely within me what seemed to be an echo, not of a bough creaking with the wind, but a sound more uncanny, as if a prehensile arm had swayed a branch of an oak in the primeval forest."

This was said by Ned Featherworth, who was relating his experience to a group of fellow members of the Deviate Club that had come together in the smoker.

"Oh! I see," said James Scott, the Nestor of the club; "it is atavism cropping out again. What person beside Ned would look for signs of it in the shoes of an ancestor?"

"I beg your pardon, sir," interposed John Smallwood; "how can atavism crop out except in 'kids'?"

Accustomed to sallies from him, the pun was allowed to pass unheeded by the other men.

John Smallwood, let it be said, was a confirmed punster, whose chief qualification for membership in the club, when his name came before the committee, was the perverse habit he had of playing upon words. On the subject of conundrums, too—an ample stock of which he always kept in store—

the same queer bent was evinced. It was of no interest to him that two pigs under a gate may make more noise than one; far different was it, however, when the point of quest lay in the path of his penchant. One of his favorite word-play riddles ran this way: "When is a lot of corn like a corn lot." The shifting meaning of the words "lot" and "ground" in the question and answer touched exquisitely his twisted humor-sense.

"Speaking of the echo of footsteps," said another member, whose claim to be among Deviates showed conspicuously by the growth of a beautiful Darwinian tubercle on his left ear, "I wish to describe to you the odd phantasies this term always arouses in my imagination."

From all parts of the room a rustle of expectation met this remark. The speaker was no less a person than Prof. Graham, the distinguished professor of psychiatry at the university. He lighted a fresh cigar, and, leisurely seating himself by the side of the dim hearth fire with the air of one who is sure of his ground, began to speak.

"Footsteps have for me an unusual purport—in fact, a mystic one, which stirs the soul,

'Deeper than plummet ever sounded.'"

"Footsteps!" he began, with a faint smile. "What a maze of inexorable destiny threads itself through their tangled meshes. They throng the thoroughfares, diving also into byways like a pack of dogs loosed from their master's chain; indoor and out, everywhere tramping, treading, pressing—

ceaseless and incessant as the pulses of the sea. How awful the relentless rhythm! How fateful the necessity of action!

"Some footfalls there are whose cadence is every whit as vital as the beat of one's own heart; and some unwelcome intruders as the strident bark of Cerberus."

"Are they the ones that dog our footsteps?" laughed Smallwood.

Prof. Graham, taking no notice of the pleasantry, in sober vein continued: "The echo of some footsteps falls indifferently on deaf ears for many years together. Some footfalls cross one's path at an angle, and touch it only at a single point; and others resound in one's life like the tramp of an army host. We discern some, too, that purport much of good, or perchance of evil, to us, and, on the other hand, many whose significance is as light as the furtive glance of a stranger's eye in the crowded street."

"You would not, Professor, imply that the volume of sound accompanying the step is the measure of its purport?" asked one.

"No, no! Not by any means. Many, if not most, of the steps which leave in our memory 'footprints on the sands of time' are faint of echo.

"I conceive it is probable," he said, "that the mystic meaning which clings to these images that stir me so keenly are due to early recollections. You may find something analogous to it among your own memories. We all are more or

less susceptible to sense-impressions, which have a vague suggestiveness to us. In some persons there are certain sounds which flood the mind with a wealth of association; others I have known, and they are perhaps a majority, in whom the affiliated ideas which cluster about the sense of smell are even more vivid than with any of the other avenues of sense."

"Think of the odoriferous nightmare," ventured Smallwood, "the smell of 'chops and tomato sauce' would arouse in poor Mr. Pickwick after the Bardell trial!"

This interruption had the effect of changing the grave mood that the professor's words had produced into a mirthful vein, which brought orderly discourse for the moment to a pause.

"The curious fashion by which pent emotion yields to humor," said James Scott, when the spirit of comity had resumed its wonted level, "displays an odd side of human nature."

"Which may be witnessed," Featherworth added, "in its perfection here among us Deviates."

"Surely. You are right," he replied with equal promptness. "In like manner as panic surges out in all its imperious force in an assembly of people whose serenity has been stirred by an abrupt flurry which was but half understood, so the composure of solemnity by surprise as easily topples to its fall."

"I shall never forget," said Scott, "an incident of this sort which belongs to my boyhood years.

A companion of my youth—a dear little fellow—one day was drowned; and at his funeral some of his playmates had been chosen pall-bearers. On entering the church door an unexpected trifle touched the risibles of us lads, and the instant spasm of laughter took hold upon us, which the sad occasion served only to intensify. The 'psychic moment' lasted, if you will excuse the phrase, till we got together behind a stable-shed after the ceremony and laughed the feeling off."

The Deviate Club, briefly stated, was founded by a few genial lights for mutual fellowship. These men are Deviates in the sense that they veer from the common standard of mental endowment. Men of talent are many of them, who by training look out on life with clearer vision than ordinary mortals, and by heredity take a point of view peculiar to themselves. Besides, they have a way of looking askance at the world which throws into perspective many hidden things.

Later the same evening the subject of atavism again claimed attention. Richard Cross, a man of middle years, who commonly did not frankly surrender himself in conversation, had this interesting case to present.

"I have a cousin," he said, "who assuredly would be called neurasthenic. In him may be observed a strange mental warp which appears to me to be a form of atavism. To be sure, he describes symptoms widely different from those experienced by our friend Featherworth; but doubt-

less Prof. Graham would interpret them as belonging to the same class of deviations."

"The crunching sound of the teeth by persons eating nuts produces in him an indescribable feeling of restlessness—a nervous commotion, which pervades his whole being. This sensation receives an added impulse if apples specially crisp are eaten with the nuts, so as to heighten the masticatory jamboree. To him, then, an apple bee, or a Halloween party is not simply the jolly function that it usually is to most of folks."

"Indeed!" exclaimed Scott. "Does he describe it as a painful sensation?"

"No, not at all, sir. It is not," he says, "a painful sensation, but agreeable rather in nature. Moreover, this pleasant feeling gives rise to ideas that are somewhat unctuous, not like those that come with liquor, but a swell of emotion, vague and ill-defined, carrying with it a mild tone of lubricity. If he should lose self-composure, as he sometimes for an instant fears he may, then no doubt his state would nearly be comparable to that of a nervous girl who goes to pieces in a fit of laughter."

Dr. Cavendish, the genial physician at the insane asylum, had entered the room in the midst of the discussion which followed this narrative, and when appealed to said among other things: "I, too, have met with this state of feeling in one instance at least among my friends. For its explanation I share with some of you the belief that

we should seek an answer to the problem deep down in our nature. It seems to me it belongs to the instinctive impulses which we possess in common with the lower animals."

Explaining at length the basal propensities of animal necessity under which hunger falls, he finally said: "In the base of the brain, lying near to one another, are the headquarters of these sleeping monsters, known by the familiar terms, passion, appetite, and instinct. With a firm bond of sympathy between them all, when one is aroused into activity, is it any wonder that motor impulses are easily propagated from one to another along the whole line?" His interest led him further to remark that some of the other questions relating to instinctive impulses analogous to this one, found adequate solution by this selfsame theory.

Dr. Cavendish, a man of some forty-one years of age, combined with a scientific attainment great intelligence and rare common sense. Rather above the medium height, and slender of figure, his refined face was marked by strong regular features whose dominant quality rested in a sympathetic mouth and a kindly eye. To correct what he termed "hypermetropic astigmatism," he wore glasses set in gold frames. The social instinct he possessed in large measure; and his cordial and affable manner, his genial, cheery presence fitted him out to be the best of companions. He had, also, the sense of humor, that gentle helpmate, which bore him cheerfully through the grave

scenes to which his walk among those who "sit in shadow" constantly exposed him.

Being urged by his friends to give them something of interest, he protested that it was not well always to serve them in "the dry light of prose."

"With your indulgence, I have brought with me," he said, taking from his pocket a folded paper, "a few lines of verse, fresh today from the pen of an insane patient of mine. She has a sad history; and in the lines, has better told than I judged she was able to do, the bitter loneliness of her heart. She has headed it,

PERDU.

'Almost at the end of the journey
I have faltered, and lost my way,
With the shadows gathering swiftly
At the closing of the day.

A few more steps in the darkness,
And the last faint echo shall cease,
With the light of another dawning,
Or the silence of perfect peace.' "

On a former occasion Dr. Cavendish had read them some verses written by another patient, which were very similar in their spirit of sadness. Here they are:

SONG.

PART I.

All through the cornfields,
'Neath a blue sky,
Under green hedges,
My love and I.

In the warm sunlight,
  Over the lea,
Hand in hand straying,
  Singing went we.

In the pale moonlight,
  Down by the sea,
In the soft twilight,
  Loving were we.

PART II.

On the bleak moorland,
  'Neath a dark sky,
Under bare branches,
  Lonely am I.

In the chill north wind,
  Up from the sea,
In the gray twilight,
  Parted are we.

Over those blue waves,
  Far, far from me,
In a strange country,
  Faithless was he.

After the comments which followed the reading of the poem were exhausted, Dr. Cavendish took up the theme of his talk: "Among insane vagaries are notable instances of the free play of phantasy. It may be seen in the propensity to pun, to rhyme, and to the use of metaphor; particularly in the subjects of hereditary insanity is this a common observation. These patients always form a distinct group; and we find them an interesting and amusing feature of the asylum life.

"Among their bright sayings I have from time to time collected bits of wisdom and humor in the form of witticism; and, as we have seen, specimens of poetic invention are not rare.

"In the presence of a patient one day I held in my hand a coin, on the reverse of which appeared an impress of the American eagle.

" 'Do you know the purport of that?' he said.

" 'What, the coin?' I asked.

" 'No, the eagle. What do you suppose is the reason the government stamps it there?' pointing to the coin. Receiving no answer, he gravely replied: 'To remind the people that riches may take to themselves wings and fly away.'

"At another time, in company with my son, I was going among them, when suddenly we came upon one who had the name of being a wit.

" 'Well, Jim,' said my son, 'how does the cat jump today?' a slang salutatory phrase.

" 'Oh! sort of cat-a-leptic,' came quick as a flash from Jim, as he disappeared round the corner."

"In such company," exclaimed Featherworth, "our brilliant wit, Smallwood, might prudently hide his diminutive head."

"Oh! thank you, Ned!" he replied, " 'This is the most unkindest cut of all.' " Then, after a pause, "By the way, let's ask Dr. Cavendish to bring him down some evening."

"Great Tuke!" cried one of the company, gayly. "What rare good fun it would be to witness Smallwood *flagrante bello* with a real lunatic!"

"That really is a good idea," remarked Featherworth, with a smile. "Would it not exemplify Dryden's familiar lines,

> 'Great wits are sure to madness near allied,
> And thin partitions do their bounds divide!'?"

"Alack!" sighed Mr. Scott reproachfully; "why need we so sad a spectacle of human frailty? Besides," he asked, "isn't it Pope who says,

> 'The strangest antipathy in the world is that of fools to men of wit'?"

Since empty banter is liable to appear unexpectedly in club talk everywhere, this tone of frivolity in the conversation need scarcely excite our surprise. If an excuse so patent does not suffice to allay incredulity it should be remembered that the circumstances pertaining to this narrative took place in the auspicious period of the month, at the mystic time described by Shakespeare in these lines:

> "It is the very error of the moon;
> She comes more nearer earth
> Than she is wont,
> And makes men mad."

As the thread to the needle, Dr. Cavendish proceeded to observe after due reflection: "The strong bent to imaginative activity which is found in its completeness in the actual insane, or those sharply predisposed thereto, may be seen in the capacity to form quickly and clearly half-illusionary pictures

out of the details of external surroundings. I have often witnessed the fact that persons so constituted readily detect the semblance of human or animal forms in the irregular lines of a figured ceiling, in the lineal design of a carpet, in the outlines of the clouds, or, as it sometimes happens, in the dark shades of a thicket."

"Do you allude," asked Mr. Scott, "to those persons, spoken of by the books, as visualizers, who by looking intently for a time at a printed page are able to reproduce the words against a blank wall?"

"No, sir, I do not mean them," he replied. "There is a class, I know, called visualizers (and also audiles, who in like manner can reproduce sound impressions), who possess a highly organized nervous system, and are particularly prone to mental and nervous disorders, but these are not the ones to whom I just now made allusion."

"In speaking of the peculiarities of the imagination," said Prof. Graham, "I am reminded by what Dr. Cavendish has observed that the operation of prejudice, expectation, and some states of the emotions continually influence our views of life. Apropos, you will recall how Oliver Wendell Holmes has shown that there are at least six personalities distinctly to be recognized as taking part in a dialogue between John and Thomas:

'1. The real John, known only to his Maker.

'2. John's ideal John; never the real one, and often very unlike him.

'3. Thomas's ideal John; never the real John, nor Johns's John, but often very unlike either. In like manner—

'4. The real Thomas.

'5. Thomas's ideal Thomas.

'6. John's ideal Thomas.'

"A recent writer," he pursued, "explaining the psychology of quarrels as precipitated for the most part from an atmosphere of suspiciousness, takes the ground that the effect of imaginary grievances comes in time to be the cause of real ones. For example, into some trifling incident between two persons, one of them, in error, believes an affront to himself is intended. He retorts offensively, and the other person, not conscious of having done anything to merit rebuke, finds himself insulted, and in turn retaliates. By this time actual injury has come; and behold! the quarrel is on."

"Dr. Cavendish, may I ask," inquired John Smallwood, earnestly, "is insanity ever contagious?"

"Not in the sense," the physician replied indulgently, "that the infectious fevers are, but now and then we find a nurse or one closely associated with the insane becomes affected. It is more the contagion of the feelings, such as a contagious laugh, than infection from disease germs—a subtle influence upon one nervously susceptible to mental disease. I think I can say," he added confidently, "that the 'bug' of insanity still evades discovery."

"Speaking of infection, have any of you heard," inquired Graham, "the jest of Dr. North, a noted

Philadelphia specialist, accounting for the proverbial slowness of his native city?"

A number of the men assured him they did not recall it.

"Yonder mass of the dead," said North, designating with his hand where lay an ancient graveyard, "drains into the river from which the oldest inhabitants have long drank."

His friend, Mr. Clayborne, an unmitigated Deviate, who hated riddles, failed to see the "tremendous wisdom" of this one. Half an hour later, after the talk had drifted away from it he surprised the physician by saying, "I think I see it now. How curious! But it is an argument as well as a jest."

"I have heard, too," said Featherworth, smiling, "that no one in that city ever dies of galloping consumption. Indeed," he continued, "while they call a dawdling car service, 'rapid transit,' nothing seems to go there at a gallop."

"And, too," remarked another critic, who seemed to know the Quaker City, "I understand the oldest inhabitants suffer horribly from insomnia; at least, it is said, they seldom go fast to sleep."

"For untranquil sleepers, and these jesters forsooth," cried Scott, with warmth, "I would prescribe the cold bath long ago recommended by Horace:

'Transnanto Tiberim, somno quibus est opus alto.'"

Some time thereafter Dr. Cavendish fell in with a company of sentimentalists in the library, who

had been wondering what forms of pursuit gave on the whole the largest bounty in the way of happiness.

"Why," said he, smiling affably at the immense credulity these members displayed, "you should come with me *intra muros* for the grandest examples in the world."

When the roar of laughter had given way to curiosity, he explained more fully the happy, contented life of some of his patients.

"To be sure," he added, "a contingent of the insane are unutterably sad and forlorn. But on the other hand, there are always among them certain types that are happy beyond the dreams of fruition. I venture the assertion that it has never entered the fancy of a sane man the good things that the asylum dreamer, who notes not reality, believes are his sure possession."

It was getting late, and the men were already beginning to depart. Among them was Dr. Graham, who went directly home, upon making his adieu to a few friends, who parted from him at the opposite street corner. Quietly letting himself into the house by his night-key, he passed through the hall and intervening rooms to the study at the far side.

The recent death of his wife had thrown a gloom over the household, and there was no one awaiting his return. Taking up his pipe, a well-stained meerschaum, he filled it from a jar at his elbow, and lighted it complacently. He sat down before

the grate-fire in a large chair fashioned for ease; at the same time, reaching from the table a copy of the "Journal of Psychology," which remained unopened in his lap, he gave himself up unreservedly to the seductive influences of the hour.

Presently footsteps were heard on the pavement below his window. He listened instinctively to the receding sound until it died away in the distance. To him this incident naturally brought to mind thoughts relating to his talk at the club, from which his attention turned to the contemplation of the footsteps that had so lately brought peace and content into his home, and whose sound had passed forever out of these halls and rooms, the familiar scenes of their intimacy, where he and she had been so happy together.

Long and silently he indulged in these musings of sacred memory. But at last, collecting his half sleeping senses, he rose, emptied the ashes from his pipe, which now lay on the ledge of the window, and put it back into its familiar place. Adjusting the fire for the night, he took down from the mantelpiece a candlestick, lighted the candle in it, and wearily mounted the stairs to bed.

XIII.

FROM THE NOTE-BOOK OF AN ALIENIST.

"The great business of life is to be, to do, to do without, and to depart."

MORLEY.

"Some things are of that nature as to make
One's fancy chuckle, while his heart doth ache."

BUNYAN.

FROM THE NOTE-BOOK OF AN ALIENIST.

Early Signs of General Paresis

A COMPARATIVELY modern form of mental disease, at least one that had not been recognized earlier than one hundred years ago, is general paresis, a type of degenerate disease that is very prevalent throughout the civilized world today, and one that forms a prominent group of the admissions to the institutions. It is a grave form of mental breakdown of middle life, and is much more frequent in men than in women. This affection was first described by French observers, the pupils of the great Esquirol (1822). It has occupied a conspicuous place in the discussions of physicians since that time, and the space given to it in medical literature is voluminous.

The symptoms of the fully developed disease are characterized by difficulty of speech, pupillary anomalies of the eye, muscular tremor and uncertain gait, accompanied on the mental side with intellectual weakness and delusions of grandeur. At the onset, however, the symptoms are very obscure and insidious, and it is due to this fact that the family physician, into whose hands the case first falls, often fails to recognize it. It cannot be too emphatically impressed on the general prac-

titioner that he should intelligently study this treacherous malady, not alone to enable him to recognize it speedily, but for the weightier reason that it is in the initial stage that the most favorable season is offered—in fact, the only time during its course when treatment is at all likely to be crowned with success.

Generally, among the earlier indications, as I have pointed out elsewhere, there is a lack of mental vigor. This may be manifested, on the part of the subject, by a loss of interest in his business, or an inability to attend regularly to his affairs. It may be impossible to keep his attention fixed for an extended period, and, at the same time, he may be able to follow out in a fair way the routine of his daily duties, if these be not too exacting.

However, the inability to fix the attention is attended with a spirit of restlessness, which in turn develops into an alteration of character and disposition. The patient seems erratic and unduly excitable, especially over individual interests. In this change of character, Brierre de Boismont, a long time ago, first called attention to a failure, or perversion, of the moral sense, as one of the most notable of the early symptoms. In rare instances, even several years before any other sign of the disease has been detected, some moral perversion, such as an act of theft or indecency, has occurred.

Moderate exercise often causes unwonted fatigue of mind and body. Confusion of ideas, temporary forgetfulness, an inability to control the mental

processes as heretofore, give occasion for annoyance to the patient, and result in discouragement and irritability on his part. The mental symptoms at this stage are seldom considered of any importance by the family or friends. Furthermore, the feelings are intensified, and the patient becomes readily excitable, often about trivial matters. Temporary loss of self-control follows, with an exhibition of temper on occasion, beyond the degree that is wont to be displayed, even by one nervously fatigued. Sometimes a change in the affections occurs, so that persons previously dear to the patient become obnoxious to him.

Long before this catalogue of mental disturbances has been completed, the physical symptoms usually make their appearance; in some cases the two appear together. The patient may complain of being "nervous." Insomnia is frequently an early trouble, or the sleep may be very light and unrefreshing, often disturbed by dreams and nightmares.

There are certain diffuse symptoms that should claim critically the attention of the physician. Chiefly among these should be enumerated flashes of heat to the head, and alternate pallor and flushing of the face; momentary pains of neuralgic character, felt in different parts of the body, or a localized pain, as a facial neuralgia, or a burning spot on the trunk or limbs; and also exalted sensibility, followed by tingling of the skin, sometimes loss of sensation, or altered sensation.

Some patients have the feeling that they are walking on air, and are not fatigued after exercise that may be excessive, while others are easily tired, and experience but little relief from rest. The circulation may be sluggish, and congestive attacks not infrequently occur.

These signs, it will be observed, are indefinite. Many of the symptoms would indicate nervous prostration, with or without hysteria, or uncomplicated cerebral exhaustion. In this early stage of the disease, to which we refer, there is fear that the physician will fail to catch some of the more subtle signs, unless he be on his guard, and take care to see the patient at different times of the day, and under varied circumstances, as rest, especially a good night's rest, may greatly improve his condition. The first stadium passed, the malady becomes, soon or late, well defined in the development of symptoms that are characteristic and pronounced.

It is generally agreed among psychiatrists that the conditions incident to the life of the poor predispose them to insanity, and it is found that a higher percentage of this class become insane than the well-to-do. Whether this rule applies to the distribution of general paresis is a moot question and an interesting one. Some authorities, as Regis of Bordeaux, contend that the upper classes suffer most from it, while other observers of equal rank, as Mickle of London, assert, on the contrary, that it is more prevalent among the lower classes.

It appears from compiled statistics of the insane, for a series of recent years, comprising the insane of the Atlantic seaboard in and about the large commercial centers of Boston, New York, Philadelphia and Baltimore, that the highest percentage of general paresis among men makes its appearance in the better classes of society. Of 17,633 indigent male patients, 13.7 per cent. were general paretics, and of 16,956 indigent female patients, 1.3 were general paretics; of 3005 private male patients the percentage of general paretics was 16.2, and of 2,736 private female patients the percentage was 18.

The result, therefore, may be put down in the following order: (1) Men of the upper classes, (2) men of the lower classes, (3) women of the lower classes, (4) women of the upper classes.

The Trained Mental Nurse — Appetite

Old as the human race is the subject of nursing, and under the guidance of maternal instinct this art was practised "with fond and anxious care," even in primitive times. Nursing, therefore, is not new, except in the matter of training—the systematic education for the trying duties of the calling.

The early history of the insane gives evidence of cruelty and neglect to an extreme degree, and there is record of no other class of impotent folk who have been so utterly misunderstood in the past. From earliest times they have been feared,

shunned, and only too often maltreated. But the influence of modern and more Christian views has changed all this into compassionate treatment and intelligent care.

We naturally respect the nurse who devotes her life to the work of caring for those who are ill in body, but there can be no exaggeration in the expression of praise for the nurse who conscientiously gives her life to the care of those afflicted ones who are stricken with mental disease.

The work of the mental nurse is varied and exacting, and when tactfully performed it gives assurance of the possession of the highest qualification for such a service. Oliver Wendell Holmes, who understood the life of the nurse, has said of her:

"Blest is she who knows no meaner strife
Than Art's long battle with the foes of life;
Whose cheering presence always brings relief,
Who yields herself to soothe another's grief.
Nature's truest servant, powerful to aid,
Who dares the fate the bravest might evade.
Such are the toils, the perils that she knows,
Days without rest and nights without repose;
Yet all unheeded for the love she bears
Her fellow beings, whose every grief she shares."

In some cases where the appetite is perverted there is an insatiable desire for food, and large amounts even of indigestible articles are swallowed ravenously (bulimia). In this connection may be mentioned the changed sense of taste or profound

disturbance of consciousness that enables the taking of filth and other disgusting articles.

In other cases there is a prolonged absence of the feeling of hunger.

Illusions — Old Age — Religion

"An illusion may be defined as a false perception with an external object." Examples: The lights and shades of a thicket at dusk appearing to a superstitious colored mammy to take on questionable shapes of animals and goblins; objects in a graveyard mistaken for persons or ghosts.

Illusions are of frequent occurrence in normal individuals. Aided by the testimony of the other senses, the normal mind recognizes the abnormal character of the impression; the illusion is accounted for and corrected. By the insane, on the contrary, the false perception is not corrected, and it exercises an influence upon mental content.

One author states, which is sound doctrine, that an old man is no longer susceptible of new ideas. His mind lives in the past. Hence, in a great measure, arises the extreme difficulty amounting in many cases to an impossibility of removing mental malady when it occurs at an advanced period of life.

Religious insanity, and by this is meant cases in which religious delusions predominate, is con-

sidered generally a very tenacious and intractable form of mental alienation.

Confinement from Bad Motive — Old Age

The convictions of a people are apt to show themselves in their laws. Here observe an instance in the prevalence of the false idea that sane people are frequently deprived unjustly of their liberty—a belief that has been fostered by romance writers, and by that peculiar mysticism with which the subject has been surrounded from very early times. This belief is reflected in our laws; it requires only a cursory observation to detect this prevailing thought in the checks and safeguards to protect the community against this imaginary evil.

An intelligent foreigner, visiting our shores for the first time as a commissioner to study our lunacy laws, with reference to their adoption in his own country, would undoubtedly conclude that the greatest defect in them is in our system of certification, under which gross outrages could occur in the frequent incarceration of sane people.

As opposed to this belief, note what is said by those who by their eminence and experience can speak with authority. The late Dr. Kirkbride, referring to this subject, makes use of the following explicit language: "A very extended experience has satisfied me that the friends of the insane are not disposed to confine them unnecessarily, or from

AN INSANE WOMAN BURNED AT THE STAKE FOR WITCHCRAFT, SCOTLAND, 1773.

sinister motives, and I have yet to learn of any deliberate attempt to confine a sane man or woman in any of our hospitals, as insane, or to place an insane one there from bad motives."

Dr. Ray has declared in his publications that in more than 3500 cases under his own observation, he has never met with one of the kind, and he utterly repudiates the idea of such being of even very rare occurrence anywhere in this country.

Another authority says: "In the twenty-six years of practice as a hospital superintendent, I have never known of a single case of the commitment of a sane person."

Men, like peaches and pears, grow sweet a little while before they begin to decay. The genial autocrat of the breakfast table has adduced it. It is not uncommon for a person of stern and lofty bearing to become remarkably gracious and easy in all his ways in the later period of his life. It is said of the inflexible Duke of Wellington, for example, that in his last years he was very gentle in his aspect and demeanor. When a change occurs either through disease or full maturity, it may be explained, it first shows itself in the feelings—the emotional element of mind.

Favorable Signs — Religion — Early and Late Treatment — Weep

Among the chief symptoms which portend a favorable outcome in a mental case may be men-

tioned: normal sleep; a return to the normal mean average bodily weight; a return of the natural facial expression and appearance; the revival of natural affections; an interest in the patient's own personal appearance; and the realization and recollection of having been ill. So significant at this stage is the sign last given that one should view with grave misgiving the genuineness of convalescence when a patient in a positive manner denies that he has been mentally ill.

As a result of early training and association, the desire for spiritual comfort by the insane is a healthy yearning, and its exercise, within proper bounds, is found wholesome to them. The benefit of religious observances among the insane is not alone confined to the obvious propriety of it, or because many of them derive real comfort from this source, but because of the effect it has upon their self-control, and that it tends to displace the morbid broodings with a healthier train of thought.

The comparative results of early and delayed treatment are convincingly given by a hospital physician in an analysis of his statistic tables. He shows that the average percentage of recovery on the admissions for a period of ten years was 32.55, while the percentage of recovery of those who were retained at home without systematic treatment, until the disease had continued a year or more, was only 12.34. That the percentage of recovery

of those who had been insane less than a year was 44.06, and the percentage of recovery of those admitted within six months of the beginning of the attack was 46.01.

Setting aside the higher aspect of the case as not admitting of a definite standard of comparison and viewing it only from a financial standpoint, the loss sustained as a result of the procedure is not inconsiderable.

The poet says: "The willow weeps, but cannot feel; the torpid maniac feels, but cannot weep."

Mens Sana in Corpore Sano — Injury to Head

Few, even among the more highly educated, fully and practically realize, this important fact: that the usefulness of the mental powers depends in a great degree on the art of preserving the health of the brain and nervous system.

Among the men who have achieved great renown, few have suffered much from ill health. "A sound mind in a sound body" has been the foundation of their success. It is said of Wellington that his strength was so great that the only rest and recreation he needed amid the fatigues of the camp was to follow the hounds; and after passing the day before a hostile army, he could retire to his tent and pass the entire night in writing a masterly project, or in planning a brilliant campaign. This was the case with Homer and Shakes-

peare in poetry, with Plato and Bacon in philosophy, Newton and Agassiz in science, and Cæsar and Alexander in war. They all had wonderful powers of endurance.

We meet instances, no doubt, of feeble and sickly bodies associated with remarkable gifts of mind. Such cases, however, are but exceptions, and we never can be sure that the mental capacity would not have been greatly increased had the bodily condition been healthy.

Johnson has touchingly described—probably from experience—the condition of a "man of an active and elevated mind, laboring under the weight of a distempered body." "The time of such a man," he says, "fumes away in projects and in hope, and the day of action never comes. He lies down delighted with the thoughts of tomorrow, pleases his ambition with the fame he shall acquire, or his benevolence with the good he shall confer; but in the night the skies are overcast, the temperature of the air is changed; he wakes in languor, impatience and distraction; and has no longer any wish but for ease, nor any attention but to his misery."

Injury to the head which results in concussion of the brain seems to lessen its power of resistance; affects directly the vasomotor control of its blood-vessels, and thus predisposes it more readily to attacks of congestion. It is very probable that sunstroke acts very much in the same way upon

the brain, *i.e.*, by predisposing it to hyperemia (blood-pressure), and by lowering its capability to resist disease.

Impairment of Sleep — Friends' Greetings

Sleep is so important to health that a given space may be devoted to it. The ability to sleep well is one of the greatest blessings vouchsafed to man. Without sleep life becomes a burden, and the living being who cannot sleep must surely die. So essential is it to life and mental integrity, that the man who cannot sleep slowly degenerates and his mental powers gradually fail him.

At first the higher functions of the mind are affected, but as time goes on the disorder spreads to the lower functions. The appetite fails, and food is not assimilated. The various organs do not perform their apportioned work properly, and the bodily health suffers. It may take years, unless the insomnia is profound, before life is threatened by lack of sleep, but the exhaustion continues until every organ of the body suffers from want of rest, and eventually a complete breakdown ensues.

Physicians generally do not realize the importance of sleep, and therefore do not give the subject the attention that should be given to it. They often fail to understand that sleep is a habit, and one that needs to be zealously guarded. Even more readily than the appetite can the habit of sleep be impaired or lost by the disregard of a regular time for its indulgence. Proper hours of

sleep broken in upon may result in wakefulness that cannot easily be thrown off.

The impairment of sleep may relate either to quality or quantity, or to both. The amount of sleep required by persons generally varies to a considerable degree, as well as the quantity necessary for the distinct periods of life, and by persons of different temperaments. The quality of the sleep, whether it be deep or light, should also be heeded. For instance, the young require more sleep than those advanced in years; the active-minded more than the indolent and sluggish.

Good authorities say that children and youths should have nine to ten hours in bed, and even in the active years of middle life the hours of sleep should not be less than seven or eight. Strange as it may seem, the aged usually take only five or six hours of sleep at night, due probably to quieter habits, and to a tendency of taking frequent naps during the day.

On the other hand, sleep may be excessive. Certain types of idiots and imbeciles spend many hours in sleep; in advanced life, senile subjects are given to much somnolence, likewise persons suffering from organic disease of the brain.

Insomnia is one of the most urgent symptoms that is met with among the insane. In some cases sleeplessness is very marked, and the patient may not secure refreshing sleep for many consecutive nights. Some patients quickly go to sleep on retiring, and wake up in an hour or two, and lie

awake the rest of the night. Others are restless on going to bed, and do not settle into sleep until late in the morning. It would appear that the insane can do with less sleep, and not show ill effects from it, than those in normal health. This should be remembered when resorting to hypnotics.

One of the superintendents when he went abroad was often greeted by his friends with the salutation, "Well, Doctor, how is your large family today?" To which he replied, "Oh, we are all very crazy, thank you."

Mortality Rate — Gyrater — Fresh Air

It may be stated generally that the mortality rate is higher among the insane than in the sane. Speaking more definitely, it is computed from reliable figures, that between the ages of 20 and 45 years (at which period the bulk of insanity begins) the rate of mortality is six times that of the general population, whereas at subsequent ages the mortality is rather less than three times the normal rate among the population at large (Tuke).

In the early part of the last century Dr. Rush contrived a chair, which he called "Gyrater." Into it an insane patient was strapped, and by mechanical means, rapidly spun. The rotary motion was supposed "to give a centrifugal direction of the blood towards the brain," and thus cure the patient.

This remedy had but a short career, and for obvious reasons was soon abandoned.

Invalids of all types respond to the stimulus of fresh air, sunshine, and beautiful rural scenery; in no less degree do these agents exert their healthful influences upon minds diseased.

Rhythmic Sounds — Mrs. O'Flaherty

The eye and ear are paramount avenues through which one gains knowledge of the external world. This fact makes it possible to either stimulate or sedate the activities of the brain by the process of sensation. Some adventure has already been made through the agency of rhythmic flashes of light in the treatment of nervous disease. Why may we not have similar recourse in the treatment of mental disorder by rhythmic vibrations of sound?

It is feasible that an instrument consisting of flexible mechanism could be devised for hospital use, whereby rhythmic vibrations would be completely controlled, both in velocity and pitch. The *modus operandi* has not definitely assumed shape, but its adaptability to the purpose should develop in the course of experiment. Perchance there may be an attempt, in boisterous forms of disorder, to out-Herod Herod in making a racket, and by putting the patient, as it were, to the blush, cure his disease; or it may be found that a subdued rhythmic sound may carry on its wings the healing balm.

Whether the interrupted or continuous current should be used, whether increased or diminished rapidity would best suit the purpose, and the choice of the subject and method, are all as yet matters of speculation. Insomnia will furnish a wide field for exploitation. It is a familiar fact that persons who are habitually wakeful at home in sumptuous beds of ease can often be soothed into slumber in a railway coach by the regular and continuous pounding of the wheels upon the track. It may be conceived that a pleasant sound, by the means suggested, pitched just above the irregular sonorific disturbances of turning in bed, coughing, snoring, sighing, and so forth, of a dormitory or ward, would be attended with beneficial results, or happily administered in individual cases.

It is found that the chances of recovery decrease rapidly after one or two years have passed. An illiterate woman, the wife of a patient, said, in speaking of her husband, who had been insane several years, "I fear my poor John will never be well in his mind, for I think there is something growing over his brains." In chronic patients, when the skull-cap is removed after death, and the thickened and changed membranes, which cover the brain, are revealed, the prediction of Mrs. O'Flaherty is not so far astray. This morbid growth, the product of chronic inflammation, forms an important factor in rendering these cases incurable.

XIV.

DELUSIONS OF THE INSANE.

"When thou with rebukes doth correct man for iniquity, thou makest his beauty to consume away like a moth; surely every man is vanity."

Psa. 39: 11.

"Ye are the salt of the earth; but if the salt have lost its savour, wherewith shall it be salted?"

Matt. 5: 13.

DELUSIONS OF THE INSANE.

It may be stated at the outset that the distinctive feature of this thesis is the assumption that delusions of the insane are based primarily upon a change in the vital feelings, and not, as commonly asserted, on disturbances solely in the intellectual activities of the mind. Lest this bare statement be not sufficient to make its meaning clear, let us review briefly the relative influence of the feelings upon ideas, as well as the influence of ideas upon the feelings.

The principle is well established that vital feelings, the psychical corollary of organic sensations, accompany all of our ideas in the stream of consciousness. But it should be remarked also that the feeling element in a mental state is not subject to the law of the association of ideas like our thoughts.

Here may be seen the influence of ideation upon feeling, for it is entirely through this relation of thoughts to new thoughts that feelings pass into new feelings. Of the two, thought is by far the more mobile. Hence it is that feelings form, as it were, the basis to which the results of experience are only gradually transferred from the more fleeting surface of thought. Since feeling is so deeply rooted in consciousness, a profound convic-

tion or belief requires time as a necessary condition of its development. Hence those ideas which have taken root in the feelings are not easily displaced. Owing to this quality, the feelings have a retarding effect upon the combining of ideas in the train of thought. This may be termed the inertia of the feelings, which not only explains some of the peculiarities of morbid thinking but also becomes the source of many inconsistencies in daily life.

In normal conditions knowledge gains in strength and security, and becomes truly a personal possession only when rooted in the feelings in this way. In the same manner it can be seen how a delusion becomes deeply entrenched in the insane mind. Furthermore, the fact that a certain idea, or set of ideas, has as a basis strong interest or deep emotion, alters its relation to other ideas. It becomes a stronger centre of association than it otherwise would.

In all experiences attention is given only to that which in some way affects one's deepest interest. Feeling simply becomes the dictator. All ideas that are not in accord with the ruling feeling are either cast aside or suppressed. Even ideas which stand in connection with oft-repeated experience may be wholly ignored, where there is this strong tension or deep and enduring interest. The Christian Scientist, as an example, lays more stress on the few instances in which he can believe that he has received help by his peculiar process of healing, than

on the many in which such a belief is impossible. The reasoning of the medical hobbyist is open often to the same criticism. This is the explanation of the failure of many vaunted new remedies. Again, when love is all absorbing the unlovable traits of the object are not seen. Someone has said: "Love is blind only because it is wonderfully keen-sighted in one certain direction."

A widely divergent set of facts in criminal annals equally illustrates this truth. In the murderer, the passion that prompts him to the execution of the deed often overpowers all rational prudence, causing a reckless disregard of incriminating details. Lotze has especially emphasized the fusing of ideas with the given vital feeling. If the vital feeling is changed, the road to the ideas connected with it is blocked. It is in this way he interprets the facts that after recovery from severe illness one does not remember what he experienced while it lasted, or that one cannot recall the particulars of a terrifying dream.

In consequence of the inertia of feeling, the accompanying feeling does not at once change with the idea, but extends to the succeeding ideas, even when these are in no way connected with that which produced the feeling. Thus, a feeling is often strange to ourselves, but in most cases it exerts its influence upon the new content of thought without our noticing it.

All strong feeling, therefore, struggles for the sole control in the mind, and gives color to all

mental activities. The final questions, with which the views of life are concerned, are decided in the last resort according to the dictates of feeling. The attitude is the same whether the man be sane or insane. This is no less clearly shown in the great contrast of the views of the optimist and the pessimist in society, than in the cases of the expansive paretic and of the gloomy melancholic of the asylum. Just as the appearance of a landscape changes according to the light falling on it, so the same things and events seem to us quite different in our varying moods.

In the instinct of self-preservation, the most fundamental instinct of our nature, lies a tendency to make the individual self the centre of existence. By this principle the pleasure or the pain that is felt, even from early life, must entirely depend on what favors the preservation and the development of our own being. When ideas arise of that which excites pleasure or pain, the instinct of self-preservation stirs, as love or abhorrence, and assumes the character of an impulse (Höffding). When the feeling is determined by the idea of what promotes or hinders self-assertion (self-preservation and self-development), it will appear as a feeling either of power or powerlessness, according as we think we have or have not at our disposal sufficient means of self-assertion. In his disposition every person has a practical regulator, a level above which his feelings rise only in single instants, and below which it is the exception for them to sink. This

constitution of mind, which is due partly to inherited tendencies and partly to circumstances, is the basis of mental integrity. If the feelings habitually transcend these bounds, then there arises in consciousness that vague sense of power or of fear, or a strangeness of the ego, which is the beginning of a delusional state of the mind.

In this connection it may be said that insanity is not a thing apart from human nature. In the main it is but an exaggeration of one or more of the operations of the normal mind, instances of which may be found abundantly in every-day experience.

Lately, while talking of the effect of panic on an audience, a prominent orator in a public address, said: "At this moment, were anything to happen so suddenly that we did not quickly understand its purport, we should all go out of these windows." The start one makes on hearing an unexpected noise is a familiar instance of panic, and shows how easily one's sense of fear may be aroused. Only let this state be prolonged and there would be the identical condition which we see in our patients who are suffering from delusions of an exaggerated sense of fear.

In the two classes of delusions, viz., those which arise from states of exaltation and those which arise from states of depression, you will observe that they are respectively characterized by a feeling of pleasantness and a feeling of unpleasantness. These, as it seems, are psychologically the two

grand divisions of the feelings, and incidentally the delusions fall into these divisions without any special attempt to make them do so.

In the study of delusions the writer examined carefully 150 patients. Of this number 33 men and 69 women had delusions, while 17 men and 31 women gave no evidence of them. Among the men, 57.5 per cent. had delusions based on a sense of power, and 78.1 per cent. on a sense of powerlessness. Among the women, 44.9 per cent. were based on a sense of power, and 84 per cent. on a sense of powerlessness. These figures agree closely with those obtained at Clarinda, and give clear proof of a marked preponderance of delusions based on the sense of inadequacy in the insane.

In a number of variable types of insanity, such as dementia præcox, general paresis and manic-depressive insanity, delusions based upon the opposite feelings of power and fear were found to alternate in the same patient; in others, such as paranoia, and sometimes general paresis, the two sets of contrasting delusions appeared side by side in the one person, so that the number of delusions was nearly double the number of cases considered. The patients who did not exhibit delusions were composed largely of cases of advanced dementia, in which the mind had become too much enfeebled to form a definite expression of mental content.

According to my observation, delusions of altered identity are rare in the insane. Among the 150 patients under review, no genuine cases of

this symptom were found. A patient, whom we may designate as R. M., was accustomed to refer to herself by the title of King David. At first, her case seemed to fall into this category, but a closer scrutiny of her claim upset the early impression. Having a sense of superiority, she formed the conceit from reading her Bible that she was a modern King David. At the same time she responded to her real name, fully realizing her own personal identity.

In examining patients for the purpose of determining the delusional state of the mind, it is not safe always to regard the expression of every peculiar idea as a delusion. Like children, the insane often give vent playfully to phantasy, a tendency to which commonly is largely developed in them. Their delusions are made of different stuff. Strong convictions they have, as we have seen, rooted in the very fibre of their beings. Notwithstanding some apparent exceptions, it was found that a delusion always has close reference to self as the centre of interest.

Contrary to popular belief, an insane person generally reasons well on all topics not related to his delusions, which shows that his judgment here is not at fault. One can neither argue him into absurd notions, nor by ridicule make him an object of derision. He can be made to believe no more readily than his sane brother that the moon is made of green cheese, and can as easily discern a "hawk from a handsaw." It is well known to asy-

lum attachés that every insane patient in a ward sees as clearly as anyone the evidence of insanity in his fellow companions.

In seeking some analogous form of belief which is held as tenaciously and blindly as an insane delusion, a good comparison may be seen in the religious faith of a devout, simple-minded, illiterate Christian. Ask either one of them the reason of the belief within him, and the answer will be in both cases practically the same, and equally unsatisfactory. Neither one will be able to tell you more than the bare fact, "I know it; I feel sure it is true."

According to this theory, then, that an insane delusion takes its rise in disturbances of the vital feelings, we can at once comprehend from what has been said already that a delusion always begins in a vague way out of the sense of adequacy or inadequacy, or from a morbid feeling of personal identity. The subsequent definite expression of the delusion in the form of a false idea is simply to be ascribed to an attempt at explanation on the part of the patient.

After all, there are, as pointed out by Dr. Wherry, but few distinct varieties of delusions possessed by the insane, while the number of false ideas they hold are as numerous as the thoughts of man. When a delusion is shaping itself out of a vague morbid feeling, it is curious to note that the accidental circumstances of the patient's environment generally determine the character of the

delusion, and control the mode in which it is expressed.

To take actual examples: A woman coming down with melancholia, morbidly develops an exaggerated sense of apprehension of harm; a shocking murder takes place at this time in her neighborhood; the vague thought of doing harm appears now in the false belief that she herself has committed the deed. You will observe that the real delusion is not the belief that she had committed the murder, but the vague apprehension that she had done some great wrong.

In the case of another woman, who, at the time of breaking down mentally, passed through an exciting scene at a fire at her home, while suffering no harm from the fire, she soon conceived the idea that she and her dear ones were to be burned alive.

Again, a man coming down with acute delirium, having an exaggerated sense of superiority, saw for the first time in a restaurant a device with revolving wings for driving flies from the table. He at once imagined that he had invented the machine, and his apparent delusion was that it possessed wonderful powers in many ways, and that he was going to make an independent fortune out of it.

Any psychiatrist may turn to his own records, and confirm the fact that genuine delusions are very limited, while the false ideas growing out of them are even more numerous than the individual cases.

From the very nature of delusions, they do not frequently change, as usually taught, but remain more or less fixed throughout the course of the disease, be it of long or short duration. The error of mistaking illusions for delusions may easily be made, and one should be cautious respecting the delusion itself, lest its different phases be taken for new ones.

The following case may be cited: A woman with vague apprehensions of harm at the onset of her disease, gets from some source the impression that she has poisoned a quantity of meat by which many people have been killed. She is brought to the hospital in an agitated state, and she imagines every man is a detective come to arrest her. Amid new surroundings she soon forgets the poison incident entirely, and then is in dread that she is to be taken out by the nurses as part of a conspiracy and buried alive. After a time this suspicion disappears. Later she confides to a friend the awful secret that she is the Evil One himself.

A careless clinician, in recording these facts in her history, might easily draw the conclusion that the patient's delusions are transient and changeable, because she appeared to have at least three distinct delusions, viz., poisoning, conspiracy, and evil possession. A closer view of her case reveals the opposite state of affairs. The real delusion, apprehension of injury, remained steadfast throughout, while its mode of expression, the false beliefs, alone was changeable.

Of the 150 patients, 5 men showed disorientation variably as to time, place, and environment. The same symptom was displayed in 20 of the women. Illusions of identity appeared 21 times—in 5 men and in 16 women. Illusions of identity and disorientation of environment is the same symptom occurring in different classes of patients. Illusions of identity are found in delusional patients whose mental tone is good; and disorientation of environment in demented patients whose minds are much enfeebled.

The principal conclusions are as follows:

1. That a delusion takes its origin primarily in a perversion of the vital feelings, rather than in a derangement of the intellectual activities of the mind.

2. That delusions may be divided chiefly into those based on the sense of adequacy and the sense of inadequacy, with a limited number due to a morbid change of the ego. That delusions of inadequacy largely preponderate.

3. That delusions begin in a vague way out of a disturbance of the vital feelings, and that the definite form of the false idea which afterwards appears is the attempt at explanation by the patient to reconcile himself to himself.

4. That the genuine delusions of the insane are very limited in number, but that the false ideas growing out of them are very numerous.

5. That, contrary to the textbooks, delusions as a rule are not transient and changeable.

XV.

SOME ASPECTS OF THE FEELINGS.

"Alas! how little can a moment show
Of an eye where feeling plays
In ten thousand dewy rays;
A face o'er which a thousand shadows go."

WORDSWORTH.

"Some feelings are to mortals given
With less of earth in them than heaven."

SCOTT.

SOME ASPECTS OF THE FEELINGS.

It was not until the middle of the eighteenth century that "feelings," using the term in its broad sense came to have any but a subordinate position in the mechanisms of the human mind. It will be remembered the orthodox view of feeling for a long time had consisted of the two simple affective qualities, pleasantness and unpleasantness. Of late years, psychologists have propounded a very different view. "The parti-colored woof of the sense qualities," says a prominent authority, "is shot through and through with a warp of affection that is every whit as variegated; indeed, if the full qualitative tale is considered, feelings are even more numerous and manifold than sensations."

Already six dominant qualities have been discerned under the designation of pleasantness and unpleasantness, tension and relaxation, excitement and tranquilization or depression (Titchener). A similar qualification is applicable to the more restricted phase of the emotions, and it is not improbable that the affective side of the mind shall in time be generally recognized in its true light. Its relational position to will has long been clearly understood; and the dependence of intellection to its many-sided qualities, though not so well known, is rapidly becoming more fully accepted.

One writer (Herbert Spencer) in discussing feeling says: "Sensations and emotions are part of consciousness (mind), and, so far from being its minor components, they are its major components."

"There has grown up universally," he goes on to say, "an identification of mind with intelligence. Partly because the guidance of our actions by thought is so conspicuous, and partly because speech, which occupies so large a space in our lives, is a vehicle that makes thought predominant to ourselves and others, we are led to suppose that the thought element of mind is its chief element. . . . The error is an enormous one. The chief component of mind is feeling."

The wide sphere that the feelings hold in mental medicine needs only to be mentioned to be appreciated. Among the arts of the psychiatrist none are used so effectively in treatment as the multifarious moral means that have as their chief aim the arousing of healthful emotions in the patient, and the dispelling of discordant ones.

We use to advantage with our patients bright colors in flowers and pictures, cheerful tones in carpets and draperies, as well as the inspiring beauties of the landscape, and the calming influences of quiet country scenes. We not only seek colors of emotional quality, but expressive music in its many adaptable forms. I have tried the subduing dominance of the color blue upon maniacal patients. My experiments were attended with some success, which led me to believe that a useful

field, as yet unexplored, lies beyond the ken of this age in the emotional effects of vibratory light and sound on the eye and ear systematically applied in the treatment of mental and nervous diseases.

There is much to consider in the James-Lange theory of emotion—the theory which, expressed in its crudest form, declares that we are happy because we laugh, and vain because we strut. While this sequence reverses the orthodox order of the process, it shows the marvelous sway of body over mind, and the good results that may follow its application. One cannot smile and smile and be a melancholic any more than a villain, unless he be an arrant dissembler.

Some time ago, in the case of a young woman deeply depressed in spirits, it seemed evident that the test of verbal substitution, suiting the word to the action, could be made with good effect. In lieu of the reiterated voicing of her grief, "If sister Sallie had not died, I would not be here," it was suggested that she be induced by the nurse to repeat after her, many times a day, the reassuring sentiment, "I will be brave, I will be brave," with appropriate intonation and gesture, and with the persistence that commonly accompanies a practice lesson in music.

Doubtless much of the benefit of medical calisthenics is due to the fact that the rhythmic movements of the drill accord with the measured cadence of the music, while no less potent is the influence of the recurrent attitudes of the head, limbs, and

body, expressing cheerfulness, hope, courage, and other expansive feelings; especially if the exercises are given in a pleasant gymnasium, before an enthusiastic instructor, who injects into the figures the spirit of play, with plenty of mirth and laughter.

This physical attitude begets corresponding emotions which react happily on the organic sensations, thus completing the circuit of reaction that in its recurring of excitation lifts the invalid to the plane of restored health.

Among the emotions of the quality of pleasantness there are many that find physical reverberation in laughter. Psychiatrists especially are interested in any of these forms of expressed mirth that may be morbid. It is a familiar law of mind that the emotions find most facile bodily expression in the action of those muscles which lie near to the source of innervation, and are readily stimulated to activity by nervous discharge. Hence the sensitive mirror of the human countenance.

Besides the laughter which is the index of immediate joy and present satisfaction, there is much of an abnormal kind, which is the sole result of reflex action attended by little or no feeling. The ancients mention a pathologic laughter caused by eating an herb grown in Sardinia, which was said to screw up the muscles of the face spasmodically, giving it the appearance of laughter, from which the expression "sardonic laughter," has been derived.

Attacks of hysteria are often attended by states of uncontrolled laughter of a reflex nature. Some

Arctic travelers speak of laughter induced by extreme cold, and the same incident has been noted by persons on first tasting food after prolonged starvation. Laycock gives an interesting case of reflex laughter due also to physical causes, in a lady, who, in a hypnotic state, even during the singing of serious hymns, broke into uncontrollable laughter, when the bridge of her nose was gently pressed. On cessation of the pressure the laughter at once came to an end, and the countenance resumed its previous expressionless appearance.

Young children as well as imbeciles frequently give vent to satisfaction by exaggerated smiles and laughter. In fact, before Goldsmith's time it was known that "the loud laugh spoke the vacant mind." This form of laughter comes under the designation of general vital feeling, having but little to do with definite ideas.

A type of person of emotional character known as "gigglers," from their excessive laughter on all occasions, shows the instability of the emotions. It will be found that these individuals, who superficially appear to be the soul of good humor, have generally ill-tempered dispositions. The same ready discharge of pleasant moods will give way to unpleasant ones, making it seem a vice of inhibition rather than the blessing of a joyous nature.

The involuntary laughter of mild dementia is a curious phenomenon, and one not always easy of interpretation. At first thought it seems discrepant that persons so affected should laugh at all, when

it is seen, as for instance in dementia præcox, that many of them are at the time in a most discontented and unhappy frame of mind. It is plain that a chief element, as in hysteria, is lack of inhibition, which is associated with other causal factors. Sometimes in the ungeared machinery of the mind the whimsical vagaries of day-dreaming may be the exciting cause, or it may be a simple reflex of physical origin similar to those already given. In most cases, however, the physiologic seat is in the vegetative organs that take so important a part in the play of the feelings.

As we know, the feelings are more readily expressed by means of the countenance and attitude of the body than are the ideas which are commonly dependent for expression on written and spoken language—a less facile process. In addition to these modes of expression, the feelings find outward vent in the distinctive channels of laughter and crying.

In certain atonic states of the nervous system, in which inhibition is abolished or markedly diminished, as in the condition here spoken of, or in states of hysteria, the feelings are as freely discharged through the exits of excessive laughter or crying as under different conditions unstable motor impulses issue into epileptic convulsions; in one case the discharge occurs with consciousness, and in the other without it. The motility of the feelings like that of the fit is involuntary, being totally independent of the influence of ideas and volition.

It seems probable, therefore, as stated above, that in most of these cases of mild dementia, where purposeless laughter is a marked symptom, the tone of feeling of the organic sensations is the determining factor of the emotional discharge. In this connection may be noted the observation, which we frequently have occasion to remark, that in states of terminal dementia the emotions share in the ruin that comes to all of the higher mental processes, disappearing or diminishing greatly.

It is impossible to frighten one who is wholly demented, or to evoke from him any expression of anger, joy, grief, or other emotion. Anyone who has witnessed the chronic insane at the scene of a fire, has had cause for wonder at the helpless indifference exhibited by them; and the stampede of an insane audience is an event unrecorded.

Mercier has called attention to a fact easily verified in the wards of any asylum, namely, the incongruous relation often seen between the idea and the emotion in the insane. In some instances the degree of feeling that is experienced by the insane patient appears to be in excess, not merely of the circumstances that actually exist, but of those that are erroneously supposed to exist, or that could possibly exist.

The sustained lamentations that a melancholy patient frequently gives vent to are out of all proportion to the supposed circumstances, and to what would be justified by the situation, even so adverse as could be imagined in the most extreme degree.

In like manner, also, the elation of the paretic is sometimes so unbounded that there could be no conceivable good fortune that would be an appropriate setting for his bizarre feelings. On the other hand, this incongruity is represented in the insane by a lack of expression of feeling not at all commensurate with the idea as it exists in the deluded mind.

An illustration of this last phase was exemplified not long ago in a young woman who told with no adequate exhibition of grief that her father and mother, living in a distant city, had been done to death in the laundry of the institution, and that she had seen their dead bodies carried out in bags on the way to the potter's field. This strange inconsistency was further shown the same day by the patient writing a letter to her parents, in which she made no allusion to this horrible idea, thanking them for a box of dainties that she had actually received from them by express on the previous day.

An affective state, whch begins as emotion, if sufficiently nurtured, passes after due time into sentiment or disposition—termed by some authors, passion. Anger and fear are emotions which eventuate, if persistently encouraged, into revengefulness and cowardice. In like manner grief is an emotion that by continued morbid feeling may deepen into fixed melancholy. "The deepest and most central current in human nature," says Höffding, "is the ruling passion, which is first aroused

by hereditary tendencies, and nourished and developed by those experiences that cause a repeated stir of feeling." It is a psychologic law that, while emotion is weakened by repetition, passion is strengthened; hence the old saw, "ruling passion strong in death."

The way in which the common experiences of life are first met by the youth in the development of the affective side of his nature determines very fully the ruling passions of his mature years. In this may be seen the wisdom of subordinating in the training of children such malevolent emotions as envy, pride, and fear, to those which stand for unselfishness, self-respect, and courage. As we have seen, emotion may develop into passion; so also it may arise in the current of passion, giving dramatic climax to it at times by lighting into flame ferocious instincts that lie dormant in human nature. This is sometimes seen when a murder, committed for self-ends, reveals in its brutal execution most unnatural details of crime.

Some years ago the community in which the writer lives was appalled by a murder of this nature, committed by a youth just merging from his teens, whose passion for a life of dissipation impelled him to kill his mother and seriously wound his sister in a most revolting manner, for a trivial and senseless larceny. In the frenzy of his emotion, the thinking power of his mind was so overwhelmed that he did not remember many of the circumstances relating thereto. This is a frequent

occurrence both in homicidal and suicidal attempts, when the subject, keyed to a high pitch, loses himself totally in the vehement tide of feeling.

Giessen, in an account of crime, aptly says: "It is not to be regarded as a mere lying subterfuge when murderers tell in their confessions that they were mastered by a fury or frenzy which deprived them of the power of thinking, and carried them away with ungovernable power, so they did not know at the time what they intended, and were afterwards unconscious of what they had done. . . . Not everything that occurs in the commission of a crime can be explained by the chief motive which led to it."

It is not to be understood that all brutal murders are susceptible of this explanation, but some that may have been placed under the head of instinctive depravity may belong to this class. Persons of low mentality and poor inhibitory control are especially prone to disordered emotion.

In agitated depression, in which the content of consciousness is narrowed, and distressing forebodings absorb the attention, it is seen after due time that the painful element of the morbid idea slowly dies out, leaving the patient, perchance, nearly as demonstrative as at first, but it is obvious that the acute suffering has subsided, and that the restless activity is purely automatic in character. The patient, who before was reduced to a shadow, and brought to the verge of collapse, now takes on flesh, and his vegetative functions

perform their task normally. He gives utterance, to be sure, to the same vagaries, but in his general aspect it takes only a glance to see that the spirit has gone out, and the substance alone remains.

How do we explain this change? Have we not here two sets of psychic conditions, one weakened by repetition, the other strengthened? The genesis of this type of melancholy seems to have its seat primarily in the disordered state of the vital feelings, which in turn arouses the morbid emotion on which the painful delusion is based. In time the feeling element, having exhausted its overwrought energy by repetition, fades away, and leaves the delusion to grow firmer, stripped of the affective component that gave it birth.

Somewhat analogous is the familiar experience of the fervor of love in the honeymoon. This being a healthy rather than a morbid process, the delusive element, commonly expressed by the phrase "Love is blind," need not concern us here.* Tracing the course of the affective element, it is seen as time elapses that the enthusiasm expends its force by repetition, and the soul finally dies out of the passion, leaving the heart lukewarm and indifferent to the former object of its affection.

This is the natural result of strong stir of any other of the emotions as well as of love, such as fear, anger, grief, and joy, which are necessarily

* See page 37.

weakened by time; for the emotions, like other functions of the mind, are incapable of being exercised continuously at the top of their bent. If love be based on respect and esteem, if at bottom there is true worth in the loved one, known and appreciated, then this affective quality of love, when the reaction comes, deepens and broadens with the weight of added years.

Again, it is often asserted that the physician is hardened in heart by the pursuit of his profession. It is a case involving this aspect of the affections that finds a similar solution. With increased experience of suffering, the sentimental repulsion occasioned by witnessing pain in others loses with time its poignancy, and the man becomes deadened to the sights and sounds that throw persons untrained to a life of this kind into helpless alarm and fright. If, however, he be a true physician, and a man of high principles, it will be found that, while his heart grows stouter amid appalling scenes, there develops in him *pari passu* a tender sympathy for his fellow-man in distress, and a strong and abiding concern to do him good.

[redacted]

XVI.

VIEWPOINT OF A PSYCHIATRIST.

"Know then thyself, presume not God to scan;
The proper study of mankind is man."
POPE.

"We are such stuff as dreams are made on."
THE TEMPEST.

VIEWPOINT OF A PSYCHIATRIST.

Advancement in Treatment

IN the early part of the last century a wave of reform respecting the care of the insane arose and swept over Europe and America. The insane were taken from the common jails and almshouses, and were placed in comfortable homes and resorts, which were especially built for them, and laws were enacted looking to the amelioration of their sad state. Wonderful achievements were effected by these humane procedures, which form the basis of the successful treatment of this afflicted class today. We no longer load the insane with chains, nor let them flounder as though they were abject wrecks of humanity, but we give them support in order to make them, if possible, useful members of society.

Early in this movement occupation and employment were recognized as most essential means in their cure, and these have not fallen in esteem with added years. Many valuable remedies, including ingenious fads, have occupied the medical mind from time to time, until today the armamentum of the psychiatrist forms a large store-house of useful knowledge from which he may draw according to his choice or skill.

In the case of calmatives, for example, since the discovery of chloral hydrate forty years or so ago, the list of sedative drugs has become a long

one. The criticism is sometimes made that the percentage of recoveries at the present day is not higher than it was fifty or eighty years ago. There is much to be said in favor of the results of today which need not be discussed here. But this assertion, at least, gives some clue to the great gravity of mental diseases in general. Compared with diseases equally serious in other important organs of the body, the results of treatment are, to say the least, correspondingly favorable.

A leading neurologist, a man of world-wide fame, remarked to the writer some time ago that he was disheartened, because he had to tell so many people they could not get well. If one takes the pains of comparing the intractable nature of nervous with mental diseases, he will find as many of the former that are unyielding as in the latter category. Moreover, mental medicine is admittedly the highest branch in the art, and consequently it is the last to be developed. It is safe to say that it has made greater advances in the past twenty-five years than in all the years that preceded. It will take undoubtedly still higher rank, and perhaps many of the mental diseases which are regarded today as incurable may be transferred in the course of time to the list of curable diseases.

Exercise — Famous Comedian

The importance of rest in the treatment of mental disease has been emphasized. As the patient gains in strength, gentle exercise for short

periods daily should be permitted, but the strength should not be taxed to the point of fatigue. At first, exercise should be limited to one or two hours a day. Even when the patient is well on into convalescence, he should not be allowed to overdo. On the other hand, if the physical strength is good, and there are no symptoms of exhaustion, physical exercise may be of great benefit to the patient. It may take the form of pleasant walks, outdoor games, such as golf and tennis, or indulgence in light gymnastics. The effects of exercise are both stimulating to the mind and strengthening to the body. Exercise also promotes good digestion, and has a calming and wholesome influence on the brain and nervous system.

It is related that a gentleman who was subject to the extremes of low and high spirits once consulted a leading specialist. He advised him to seek relief in cheerful company, and recommended to him in particular to go to the theatre and hear the famous comedian Burton. "Alas! sir," said the patient, with a sigh, "I am that Burton."

Prognosis — Thurnam — Insane Clock

Dr. Thurnam, a former Superintendent of the York Retreat, England, has given in a carefully prepared summary of the medical history of his patients, which has been regarded as possessing especial value, the following conclusions:

In round numbers, of 10 persons attacked by insanity, 5 (50 per cent.) recover, and 5 (50 per cent.) die sooner or later during the attack.

Of the 5 who recover, not more than 2 (20 per cent.) remain well the rest of their lives; the other 3 (30 per cent.) sustain subsequent attacks, during which at least 2 (20 per cent.) of them die, viz.:

50 per cent. recover
50 per cent. die

50 per cent. who recover
20 per cent. remain well
30 per cent. relapse

30 per cent. who relapse
20 per cent. die
10 per cent. remain insane

A clock in the ward of an asylum had a perversity of always going wrong. A patient remarked, "What else could you expect of a clock in such a situation?"

Obsessions — Vital Principle of Happiness

Obsessions are persistent ideas, emotions, and impulses that intrude themselves at inopportune times, and occupy the field of attention to the exclusion of other ideas. They are sometimes spoken of as besetments. An obsession consists in an

"imperative idea," with a state of anxiety, there being no marked disorder of the intellect.

In the mild forms they are common, and occur not infrequently in normal persons. We are all familiar with the tendency of the constant recurrence in the mind of a tune that "runs in the head" after attendance at a concert or listening to the victrola. Then there is the more pronounced case of the person who goes to bed, but is anxious for fear he may not have locked the front door. Before he can settle into sleep he is forced to go down to test his doubt.

One of the old philosophers says: "Anticipation is the vital principle of happiness. It is that which constantly stimulates us to exertion, and fills the vacant spaces in our lives. We are generally more interested by an uncertain benefit in prospect than by the most valuable realities which are our sure possession. In the thrills of speculation may be seen the almost universal spirit of chance."

Overtaxed Brain — Laughter and Tears

A physiologic axiom that should be recognized in undertaking a course of mental training is, that all bodily and mental energies need ample time for their effective utility. Forcing always signifies great waste. To run a mile is more fatiguing than to walk five miles; to go through in an hour what

should take ten hours to complete would soon bring utter prostration; to perform in five the work of ten years is alike disastrous to nerve tone and mental stability. Many come out apparently unscathed from such ordeals of overstrain, but, alas! too many sink beneath the burden, and become as a "bowing wall and a tottering fence." He who will bind himself to a wheel of ceaseless toil must expect Ixion's fate! As years creep on, waste exceeds repair; but in youth the processes of waste and repair not only strike a balance, but there is a storing of reserved force for the purposes of growth. This surplus power, intended for brain nutrition, and building up, cannot be diverted from its legitimate ends without the risk of impaired vitality. The nervous, overtaxed brain, as a result of overwork, not only means ruined health in the individual, but in the succeeding generations its effects are seen in low mentality and ill-balanced minds.

Laughter and tears are meant to turn the wheels of the same machinery of sensibility; one is wind-power and the other water-power (Holmes).

Train of Thought of the Sane and Insane

The most distinctive difference between the trains of thought of the sane and insane is that with the insane the associative connections are predominantly superficial and take place passively, while with the sane the associative connections are

more frequently directed by some distinct, dominant idea, and seem to arise as the result of individual guidance.

With the insane a large proportion of words suggest other words by their sound or appearance rather than by their meaning. The flow of ideas depends mainly upon such chance associations; there is little true continuity of thought and purpose. In extreme cases the thoughts follow each other so easily, so passively, that often the patients themselves are impressed with the lack of effort of thought on their part; and it may be the consciousness of this passivity which leads so many of them to conclude that these thoughts are not their thoughts, but are being impressed upon them by some outside agency—that, in other words, some one else is making the effort for them, and they are passive agents in his hands (Town).

Psychotherapeutic Methods — Derisive Terms — Heredity

The methods of psychotherapeutics are always either educative or re-educative in aim, whether they be systematic occupation, manual or intellectual, or more immediate suggestive measures. They have been found most successful in cases of persistent ideas, persistent bad habits, loss of self-control and depression. The first requisite for success is the possibility of keeping the patient constantly occupied either manually or intellectually; without this, psychotherapy is powerless indeed.

The chief lesson which psychotherapy has thus far taught is that in wisely chosen, well regulated, serious occupation lies one of the greatest hopes of benefit to the insane (Town).

Some of the terms that have been given to the condition and to the person subject to mild degrees of mental instability: peculiar, odd, eccentric, bedlamite, madcap, dreamer, high-flier, not right, cracked, touched, bereft, unhinged, daft, far gone, moonstruck, flighty, shatterpated, hair-brained, possessed, hypped, unbalanced, dote, drivel, addle-wits, screw-loose, twisted, looney, scatterbrained, bee-in-bonnet, rats in upper story, and batty in the belfry.

A child born previously to an attack of insanity in his parent is less liable to inherit it than one born after it.

Pain — Flood-Ebb — Lack of Emotion

While the feeling of physical pain in mental cases may be increased, it is most frequently decreased or abolished. Insensibility to pain may arise by indifference through want of attention, or through some delusion. Religious delusions in particular enable the patient to bear incredible suffering in silence. In this way self-mutilation of severe type may occur. The amount of pain endured by these patients seems incredible; or, on the contrary, the feeling of pleasure and pain by them seems reversed.

It is a notable fact in case of insanity, when the patient is afflicted with certain physical diseases, such as tuberculosis, rheumatism, or cutaneous eruptions, that when the mental symptoms are at flood the bodily ones are at ebb, and *vice versâ.*

Among neuropathic persons it is not uncommon to find the life of the emotions and passions almost, and in extreme cases, altogether lacking. Thus, there are men and women who have never loved; others who have never feared; some who have never shed a tear; and some in whom no provocation, however great, could excite in them a feeling of anger.

Overtaxing the Mind — Alienation

There is always more or less danger of overtaxing the mind from the too intense or too prolonged exercise of it. By sufficiently diversifying the tax, we may protract to a large extent the period of exertion. Change of work is often found to answer the same purpose as an entire cessation of it. The sense of fatigue, for instance, in any of one's members may be relieved, not alone by rest, but by using it in some other form of activity. In a similar way, if the mind has been exhausted by too active study, we will find it again roused and invigorated by directing it to a subject of a different nature. A person in whose constitution there may be a tendency to mental disorder should

especially guard against too intense and protracted mental strain.

The meaning of the term *alienation* of the mind has lost its original significance. In late years it has been applied to express simply a derangement of the functions and processes of the mind. Originally it was used by the ancients under the theory that the indwelling spirit was exchanged (alienated) for another. In consequence, the insane person was consulted "as the organ of an oracular spirit," or shunned as the embodiment of an evil one.

Emotions — Unstrung Harp — Insanity in War Times

Superstimulation of the emotions is often prolific of insanity. Some of these are: joy, terror, love, fear, grief, distress, shame from offended delicacy, defamation, calumny, ridicule, absence from native land, the loss of liberty, of property, and of beauty.

The poet eloquently compares the mind o'erthrown to the unstrung harp:

"A harp, whose chords elude the sight,
Each yielding harmony, dispos'd aright.
The screws revers'd! (a task, which, if He please,
God in a moment executes with ease);
Ten thousand times ten thousand strings go loose;
Lost, till He tune them, all their power and use."

Statistics show that three times as many persons go insane in time of war as in time of peace.

HOGARTH'S BEDLAM, 1733.

Mental Training — Synonyms

Mental training opens the way through which the mind in all its manifold operations may be impressed and aroused into activity. Like the drilling of the body to perform some special work, obstacles and difficulties hedge the way at first, but by repetition the labor gradually becomes easier, and the mind little by little responds to the stimulus.

Insanity, psychoses, mental diseases, lunacy, unsoundness of mind, aberration, mental alienation or derangement, madness, frenzy, craziness, woedness (used by Spencer, from a Saxon word, "woed," mad). The insane were often called "Toms o'Bedlam," or "Bedlams." The old term "Innocent" referred to the idiotic; "Natural" to imbeciles or the half-witted. A Scotch phrase for mild forms of insanity, "A bee in his bonnet"; English, "A kink in the head"; American (modern phrase), "Bughouse."

Good Signs — Dr. Willis

Dr. Benjamin Rush, who was a good observer of disease and human nature, sets forth the following *ipse dixit* assertions:

Persons who have children are more difficult to cure than those who are childless.

Remissions and intermissions of violent mental excitement are always favorable.

Abscesses in any part of the body are favorable.

A running from, or moisture in the nose, after it has been long dry, is favorable.

A moderate degree of increase of weight occurring during a remission of the disease is favorable. A greater degree of it is unfavorable.

Inconsistent with the principles of humanity in the care of the insane is the account of the methods pursued by the celebrated Dr. Willis, who was the physician of George III. of England. In his establishment in the vicinity of London he delegated to his attendants, or keepers, as they were called, unlimited authority over the patients. It must be inferred that such treatment in many instances amounted to unbridled and dangerous barbarity. It is painful to add that the narrator calls him one of the most successful practitioners of any age.

Exalted Mental Traits

The mental traits which constitute the character of the highest races and which place them in the van of civilization are these: energy and persistency. Indeed, if we sharply scrutinize the lives of persons eminent in any department of action or study, we shall find it is not so much brilliancy and fertility as persistency and energy which makes a great man. This is as true of Kepler and Newton as of Hannibal and Cæsar; of Milton and Scott, as of Howard and Clarkson. The minds of

such men were not only filled with ideas, purposes, and plans, but the inmost secret of their success is this: that labor could not weary, nor obstacle discourage, nor drudgery disgust.

Napoleon did not often miscalculate the capacity of his generals. It is related that, after his defeat at Essling, the success of his attempt to withdraw his beaten army depended on the character of Massena, to whom the Emperor despatched a messenger, telling him to keep his position for two hours longer at Aspern. This order, couched in the form of a request, almost required an impossibility; but Napoleon knew the indomitable will of the man to whom he gave it.

The messenger found Massena seated on a heap of rubbish, his eyes bloodshot, his body weakened by his unparalleled exertions during a contest of forty hours, and his whole appearance indicating a physical state better fitting the hospital than the field. But that steadfast soul seemed altogether unaffected by bodily prostration. Half dead as he was with physical fatigue, he rose painfully, and said: "Tell the Emperor that I will hold out for two hours—six—twenty-four—as long as it is necessary for the safety of the army." And it is unnecessary to add, he kept his word.

Energy, by which I mean capacity for labor, is, as I have said, one of the highest attributes of the higher races. It is, in fact, the measure of fullness of life. In the study of the lives of great men, beyond all other qualities, it is the most in-

variable and constant mental gift. Savages and semi-barbarous tribes are generally lacking in energy, and in civilized life the slackers as a rule are mentally feeble and listless.

Energy is one of the qualities that is the result of natural selection, as Darwin would say, and, therefore, when it is found, you can safely attribute it to inheritance. We are goaded into activity by the circumstances and struggles incident to our existence. Hence may be seen the importance that attaches to this noble quality. The energy we possess is the test, in the universal application of the law of the survival of the fittest, of our right to be numbered among the living. This, then, is the measure of our claim upon life, which was set by the Creator of our being when He issued the eternal fiat: "By the sweat of thy face shalt thou eat bread."

Fear — Idle — Solitary

Fear is by far the most important persistent emotion encountered in morbid conditions. At first the patient feels afraid without knowing why, being even aware that his fears are groundless. In acute mental disorders these vague anxieties become fixed into more or less definite fears.

Fear is manifested (1) by anxious excitement, and (2) by anxious tension.

1. Anxious excitement is characterized by efforts at defense and escape, supplication for clemency, suicidal attempts, and assaults.

2. Anxious tension is manifested in the patient by trying to present to threatening danger the fewest possible points of attack, by crouching down, shutting the eyes, and clenching the teeth. Anxious tension shows remissions, especially at night.

Burton, in his "Anatomy of Melancholy," gives the following direction for its cure: "Be not idle; be not solitary." Dr. Johnson by the ensuing commentary has improved upon the advice. "When you are idle, be not solitary; and when you are solitary, be not idle."

Valetudinarians — Fog of Acheron — Physical Causes

Strange as it may seem, a feeble constitution is commonly more flexible than a vigorous one. By yielding more readily, it is not so soon broken. A disease is for the most part strenuous in proportion to the stamina of the person whom it attacks. Strong men have energetic diseases. The puny valetudinarian seems to be affected less by illness. His semi-vital existence is often protracted beyond the active life of the more vivacious and robust.

The poet Cowper was much tormented at times with the "blues." "I rise in the morning," he says in a letter to a friend, "like an infernal fog out of Acheron, covered with the ooze and mud of melancholy." No change of place, he believed, could promise any alleviation. "Could I be trans-

lated to Paradise," he cried, "unless I could leave my body behind me, my melancholy would cleave to me there."

Insanity from physical causes is more amenable to treatment than from those that are purely mental

Paretic Speech — Anguish — Pain

The character of the paretic's speech has often been compared to that of a drunken man. The patient seems to stumble over his words, and at the same time his enunciation is halting and blurred. The labials and linguals prove most troublesome, as may be seen from the attempted pronunciation of such words as "perambulator," "artillery," "immovability," and "cavalry brigade," in which the consonants or entire syllables may be omitted, reduplicated, or even misplaced.

Alliterative lines are for the most part impossible to paretics, but as they are troublesome to many people in normal condition, they are scarcely a test. At this stage words may be uttered with an evident propelling force, or the speech may be slow and drawling; there is a frequent omission of words, an entanglement of thought, a forgetting of the idea when half expressed.

To assuage anguish of mind, patients have often inflicted serious bodily harm upon themselves. The physical pain allayed the mental torture, and was easier to bear.

The Habit of Self-control — Abstinence Symptoms

No doubt, in childhood too small regard is given to inculcating habits of curbing the passions and checking excesses of childish temperament. "One of the fundamental properties of nervous tissue," says a prominent physiologist, "is its inhibitory power, which is manifested as a regulating, modifying, and controlling influence on the nervous system." And he pertinently adds: "Were it not for this power, our life would be a prolonged convulsion."

In the normal action of the mind, the counterpart of this principle is displayed in the human will. A deficiency in this inhibitory power is often due to the defective training of the young, especially in the many instances wherein children are permitted to give free rein to every desire, to the gratification of every wish. Thus, through failure of self-discipline, injurious emotions assert their sway and evil propensities subjugate the good, until the mind, overwhelmed in its own disaster, becomes an easy prey to mental disease.

Modern social life is much at fault in granting too much freedom to the youth of both sexes, makthem impatient of control, and encouraging an unwholesome craving for excitement and other harmful extremes. These conditions are quite sufficient to vitiate in time the integrity of the mind, and to produce instability and weakness that end in the wreck of happiness and health. The numerous excesses, which are today feeding upon the vital

energies of the nation, are chiefly due to vicious methods in the training of children.

The abrupt withdrawal of morphine in persons who have formed the habit results in what are termed "abstinence symptoms." The patient becomes tremulous and uneasy, his expression is anxious, and his respirations accelerated. He is unable to concentrate his mind, and complains that he is unable to bear the torture of his feelings. If abstinence continues, the situation becomes more and more alarming; extreme pallor of the face, weak and rapid pulse, general prostration, cold sweats and diarrhea appear, and collapse is threatened. No matter how grave the symptoms, a single injection brings immediate relief.

XVII.

LEGAL ASPECTS OF MENTAL DEFICIENCY.

"I will be as harsh as truth and as uncompromising as justice."

WILLIAM LLOYD GARRISON.

"How few beneath auspicious planets born,
With swelling sails make good the promis'd port,
With all their wishes freightened."

YOUNG.

LEGAL ASPECTS OF MENTAL DEFICIENCY.

THERE are three relations in which mental defect becomes a subject of inquiry in the courts:

1. Capacity to perform particular acts for the disposal of property, such as contracts, gifts, deeds, or wills.
2. General business capacity.
3. Responsibility for crime.

As applied by the courts, the test in each of these relations is found to be distinct. In the first, when accompanied by fraud, imposition, or undue exercise of authority, a very moderate degree of incapacity will be sufficient to set aside a contract or invalidate a will. In the second, a greater degree of general capacity is required than is necessary in the first; to manage one's affairs judiciously requires a greater degree of capacity than it takes for the disposal of property. Furthermore, in the second, a less degree of general capacity is sufficient than in the third, because it is not unusual that a person may be intellectually incapable of business and still be at the same time morally capable of crime. These views have been uniformly acted on both in the English and American courts.

The degree of unsoundness that may invalidate a contract or will may be considered under the following divisions:

1. Imbecility generally.
2. Insanity, partial in character.
3. Lucid intervals.
4. Intoxication.

Under the head of imbecility generally, wherein fraud and compulsion have been practised, Justice Story says: "The acts and contracts of persons who are of weak understanding, and who are thereby liable to imposition will be held void if the nature of the act or contract justifies the conclusion that the party has not exercised a deliberate judgment, but has been imposed upon, circumvented, or overcome by cunning or undue influence." In the case of wills, while it is only necessary that there should be the capacity of reasonable disposition, great jealousy has been exercised for the correction of improper influence on the testator.

Hence, wills have been set aside, when made after great importunity of friends standing in confidential relations; where housekeeper and physician had urged an unnatural scheme of distribution; where wife dictated will, the testator being unable to speak, she pretending to understand him and making herself the sole devisee for life; where one relation produced the disinheritance of another by false representation of character; where the testator was old and feeble, and the will was made under the directions and to suit the pur-

poses of a colored woman in the family; and where a husband exercises coercion. In short, whenever the provisions of the will are inconsistent with natural justice, it will require strong proof of capacity and volition to sustain it, and slight proof of undue influence or fraud to set it aside.

To authorize a will in favor of a wife to be set aside, the influence alleged must be shown to have reached coercion, destroying the husband's free agency; or by fraud the deception must be proved. In ordinary cases, also, it will not be sufficient to prove mere influence, without fraud or connivance, or such coercion as destroys free agency. "Honest intercession and persuasion," and "fair and flattering speech" do not affect the instrument's validity.

The paper being wholly in the handwriting of the person is a fact which gives a strong presumption of sanity, which is not effaced by proof of impaired intellect generally, or by the fact that when the paper is a will there exists in it omissions of property. The same presumption exists when the testator has a distinct recollection, at the time of the execution of the will, of the terms he dictated at the time it was prepared.

It is obvious, therefore, that no definite minimum of capacity can be fixed which will be necessary to sustain a contract or will. A prominent doctrine in modern law of testamentary capacity provides that a testator must be able at the time

of making the will both to recall and keep before his mind (*a*) the nature and extent of his property, (*b*) the persons who have claims upon his bounty, and (*c*) his judgment and will must be sufficiently unclouded and free to enable him to determine the relative strength of these claims.

In other words, (*a*) the testator should know what constitutes his property, (*b*) who are his heirs, and (*c*) what disposition he intends. He need not be expected to know the exact amount of his property, but he should have a general idea of its nature and extent. He should be able to name his principal heirs, and should have clear ideas as to their relative claims upon his bounty.

An insane person can make a valid will if (*a*) in spite of his insanity, he has a "disposing memory, judgment and will," as defined above, or (*b*) he is enjoying what is called a lucid interval at the date of its execution.

The existence of weak-mindedness, when that alone is set up, can be decided by comparatively simple tests. If the pretended imbecile can be shown to have intelligently performed acts of business, the allegation of incompetency falls, unless fraud or constraint be shown. It should be kept in mind that the question of competency is intimately affected by the character of the act or instrument which it is sought to annul. For instance, as in the case of Lord Portsmouth, a reasonable marriage entered upon under the advice of his family, and to a person suitable in character and

station, may be sustained; while an unsuitable one, to a woman of light character, will be set aside when it appears that it was influenced by overpowering authority or by trickery.

A will making a just distribution of an estate will be held *per se* strong evidence of disposing capacity, while one turning the testator's property into an unnatural channel gives at least some presumption to the contrary. Sir John Nicholl has stated: "When a will is traced into the hands of a testator whose sanity is fairly impeached, but of whose sanity or insanity at the time of doing or performing some act with relation to the will there is no direct evidence, the agent is to be inferred rational, or the contrary, from the character of the act"; or, as Justice Swinburne expresses the same doctrine: "No word sounding of folly—a rational act rationally done."

In all cases, except those where the act sought to be annulled was committed during actual insanity, the question is not whether the party had a capacity to do the particular thing intelligently, but whether he had capacity and information enough to comprehend and disregard any attempt which may have been made to coerce or deceive him. In these cases of tested capacity there is apt to be great contrariety in the testimony of medical witnesses, because they frequently see the patient, not only under different conditions, but the standard of competency with them widely differs.

The courts, therefore, rely but little on evidence

of this character, so far as it is that of mere opinion, preferring to form judgment from the facts.

Upon similar principles the contracts of a person claimed to be imbecile or insane are to be tested. While the courts will not lend their aid to execute or carry into effect a contract entered into by an incapable person—unless, perhaps, for necessaries, when the fact of incapacity was known to the creditor—yet such is not the law when the incapacity was unknown, and no advantage has been taken particularly when the contract has been in part executed.

Says Judge Pollock: "When a person apparently of sound mind enters into a contract, it cannot be set aside either by the lunatic or his representatives." For a long time the leaning of the American authorities was that contracts of a lunatic were *per se* void unless for necessaries, but more recently the former view is taken. Nothing but a strong case of fairness, innocence and fullness of consideration can validate a deed when the grantor is insane.

Testamentary incapacity does not necessarily presuppose the existence of insanity, in its technical sense. Weakness of intellect from extreme old age works also as a disability. The object of the law, however, is to protect old age, not to render it still more defenseless. Respecting this fact Chancellor Kent has said: "It is one of the painful consequences of extreme old age that it ceases to excite

rest, and is apt to be left solitary and neglected. control which the law still gives to a man the disposal of his property is one of the t efficient means which he has in protracted to command the attention due his infirmities. will of such an aged man ought to be re- ed with great tenderness when it appears not ave been procured by fraudulent acts, but con- those very dispositions which the circum- es of his situation and the course of the nat- affections dictated."

nsanity Partial in Character. In former years ngland the existence of an insane delusion oyed testamentary capacity altogether. This iple was first announced by Lord Brougham, was an exponent of the solidarity of the mind, g the view that "insane on one point, insane ll." A leading case in regard to testamentary ity which has had great authority was that ew *v.* Clark, in which Sir John Nicholl, ng to enunciate a definite criterion, said: true criterion—the true test—of the absence esence of insanity * * * is comprehended single term, namely, delusion." He declared insanity and delusion were convertible terms. hat the decision in this case established was a disposal of property which was the direct, lified offspring of morbid delusion, was null oid.

the case of Waring *v.* Waring, the Judicial ttee of the Privy Council, and in the case

of Smith *v.* Tibbett, Lord Penzance, laid down the doctrine that mental unsoundness, though unconnected with the testamentary disposition, destroyed testamentary capacity. In both these cases, however, there was really a general derangement of mind; in both the delusion had influenced the disposition of property; and in both, as Chief Justice Cockburn has said, "There existed ample grounds for setting aside the will without resorting to the doctrine in question."

The doctrine has been rejected, which was first done in the case of Boardman *v.* Woodman, in the Court of New Hampshire. Judge Bartlett ruled that unless the contested act is the product of an insane delusion, it is not vitiated by it. In the case of Banks *v.* Goodfellow, Chief Justice Cockburn points out the necessity of guarding this doctrine by looking carefully to the condition of the mental powers in every case: "It is essential to the exercise of such a power that a testator should understand the nature of the act and its effects; shall understand the extent of the property of which he disposing; shall be able to comprehend and appreciate the claims to which he ought to give effect; and, with a view to the latter object, that no disorder of the mind should poison his affections, pervert his sense of right, or prevent the exercise of the natural faculties; that no insane delusion shall influence his will in disposing of his property, and bring about a disposal of it which, if the mind had been sound, would not have been

made. Here, then, we have the measures of the degrees of mental power which should be insisted upon. If the human instincts and affections, or the moral sense, become perverted by mental disease; if insane suspicion or aversion take the place of natural affection; if reason and judgment are lost, and the mind becomes a prey to insane delusions calculated to interfere with and disturb its functions, and to lead to a testamentary disposition due only to their baneful influence, in such a case it is obvious that the condition of the testamentary power fails, and that a will made under such circumstances ought not to stand."

If an insane delusion be of such character as could be held by a sane person it does not invalidate a will (Greenwood *v.* Greenwood; Bennett *v.* Whelan).

Neither subsequent suicide nor supervening insanity will be reflected back upon previous eccentricity so as to invalidate a will. Affective or moral insanity does not generally destroy testamentary capacity.

*Lucid Intervals.** When "habitual" insanity is shown, the presumption is that the act was com-

* In ordinary circumstances a "lucid interval" would seem to comprise any period of time from a few minutes to an indefinite length of time, measured by hours, days, or months. In law the term has a technical meaning. Its purport is limited to the proceedings in question. If the inquiry be an issue as to the competency of the subject to make a contract, dispose of property, or make a will, the phrase then means that he is sufficiently lucid or clear in mind to fulfill the requirements of the law in that particular juncture; and so in any other action of law in which the doubt arises.

mitted in an insane period. The character of the act goes a great way in determining whether it was committed.

Said Sir William Wynne, in Cartwright *v.* Cartwright: "For, I think, the strongest and best proof that can arise as to a lucid interval is that which arises from the act itself; that I look upon as the thing to be first examined; and if it can be proved and established that it is a rational act, rationally done, the whole case is proved."

To the same effect is the opinion of Lord Swinburne: "If a lunatic person or one that is beside himself at some times, but not continually, made his testament, and it is not known whether the same were made while he was of sound mind and memory, or no, then in the case the testament be so conceived as thereby no argument of frenzy or folly can be gathered, it is to be presumed that the same was made during the time of his calm and clear intermission, and so the testament shall be adjudged good; yea, although it cannot be proved that the testator useth to have any clear and quiet intermission at all, yet nevertheless I suppose that if the testament be wisely and orderly found, the same ought to be accepted for a lawful instrument. So, on the other hand, if there be any mixture of wisdom and folly, it is to be presumed that the same was made during the testator's frenzy, even if there be but one word sounding to folly."

Testamentary dispositions made during the intervals of febrile delirium, are often contested on the

ground of incapacity, especially where there is suspicion of fraud or undue influence. These cases are sometimes embarrassing, but nothing more can be attained than an approximation to correctness, by a careful investigation of the attending circumstances. To this condition the ordinary tests of the courts must be applied, as in other cases of doubtful nature.

The law requires that in delirium, as in true insanity, the occurrence of lucid interval should be proved, but as delirium is merely an adventitious symptom, and not, as in the latter case, an habitual state, it will be satisfied with much less proof in the former than in the latter affection.

In Brogden *v.* Brown, the testatrix, a widow lady, died of some acute disease after an illness of about ten days, during the two or three last of which she was more or less delirious. Her will was made on the evening of the day preceding her death, and the physicians differed in opinion as to her capability to make a vaild will. The will, which was prepared from instructions from her, was read to her, and signed by her, and its validity was established.

Ray cites another case (Evans *v.* Knight), where the patient died of pneumonia, during the latter stage of which he had considerable delirium. The will was made three days before his death, and the will was sustained.

These cases were decided by Sir John Nicholl on the principle that testamentary capacity is to be determined, in a great measure, not by soundness or unsoundness in general, but by the nature of the act.

In some mental conditions the patient lies in a comatose state, from which he may be aroused to a degree that he may recognize persons and answer simple questions. If the patient recovers, he has, ordinarily, very little idea of what passed at those times; in fact, he seldom can call to mind anything that was said or done. The legal capability of making testamentary disposition under these circumstances ought to receive close scrutiny by the court.

In case of injury to the head, it is not uncommon for the patient after the first shock to answer questions rationally, to appear in the full possession of his senses, although it may be found subsequently that the patient was in a state of secondary consciousness at the time, and upon coming to himself he is totally oblivious of what had occurred while he was in this state. Error is liable to arise in mistaking this condition for the normal one, and medical witnesses therefore should be on guard lest they be deceived.

Intoxication. Intoxication, when at the time prevailing, renders a person incompetent to make a contract or execute a will. These cases generally come up on the presumption of express or implied fraud. It can be only a degree less culpable to enforce a bargain made with a drunken man than it is to make him drunk for the purpose of securing it. So vigorously has this principle been applied, it has been held that drunkenness is a good defence by an endorser of a note against an innocent and *bona-fide* holder; although when a man is sober enough to write his

own name correctly, it will require strong proof of stupefaction or delirium to sustain his irresponsibility against an innocent party.

Drunkenness, while a shield, cannot be used as a means of offence; the law will not permit a man to use his drunkenness as an agent to cheat others. In actions for tort, drunkenness is no defence to the merits. Drunkenness, when it renders the testator subject to undue influence, voids a will.

In the question of testamentary capacity, then, the following points should be kept in view:

1. The will of a person of weak understanding, and who was thereby liable to imposition, will be held void, if the nature of the testament justifies the conclusion that the testator has not shown good judgment, but has been imposed upon by fraud or undue influence. In the absence of direct evidence, the "character of the act" should determine the validity of the will.

2. That the testator must be able at the time of making the will to recall the nature and extent of his property, the persons who have claims upon his bounty, and to be able to determine the relative strength of these claims.

3. An insane testator, who would be otherwise incapacitated, can make a valid will during a lucid interval, even though there is no complete restoration to sanity during the interval, providing it can be established that he is temporarily in possession of a "disposing memory, judgment and will," as defined in the above clause.

4. The will of an aged person ought to be respected, when it is not procured by fraud, and contains the natural dispositions in conformity with the situation.

5. Delusions do not affect validity, provided they are foreign to the subject-matter of the will.

6. If an insane delusion be of such a character it could be held by a sane person, it does not invalidate the will.

7. Moral insanity, so long as it does not disturb the intelligence, or is not accompanied by abnormal suspicion, hate, or morbid personal bias against one near akin, or so long as it does not affect the disposing mind, is not held to void a will.

8. Neither subsequent suicide nor subsequent insanity, even should the testator have been previously peculiar, eccentric, or somewhat weak-minded, affects the validity.

9. In case where the will has been made at the time of febrile delirium, coma, or *in extremis*, a lucid interval must be shown, and, as in other conditions, the "character of the act" should determine the validity of it (Wharton).

What Process is Required to Deprive a Person of the Management of His Estate?

Nothing is more curious than the historical evolution of the jurisprudence of insanity, and in reviewing the erroneous notions that formerly prevailed respecting the nature and causes of mental aliena-

tion one need hardly wonder at the inconsistencies and defects of the law in early times.

Originally two kinds of insanity only seem to have been recognized by English common law—idiocy and lunacy; an idiot, who, from his nativity by a perpetual infirmity, is *non compos mentis,* and the lunatic who hath sometimes his understanding and sometimes not, *aliquando gaudet lucidis intervallis,* and therefore is *non compos mentis* so long as he hath not understanding. It soon became evident to jurists that these two terms, as defined, did not include all of the conditions that came under the law requiring adjudication, and the phrase "unsoundness of mind" was used to embrace all others.

Great confusion arose in the attempt to define these terms, especially the one, unsoundness of mind, until it was impossible to obtain from the observations of the high legal authorities any unanimity of expression in the endeavor to fix a definite meaning to them.

Mr. Amos, formerly professor of medical jurisprudence in the London University, has defined the phrase, which may be accepted as a fair approximation to the truth, as follows: "The term 'unsoundness of mind' in the legal sense seems to involve the idea of a morbid condition of the intellect, or loss of reason, coupled with an incompetency of the person to manage his own affairs."

In the modern American courts the English process has been very generally adopted, by which, when a party is incapable of the management of his estate,

whether from mental unsoundness or from habitual drunkenness, a committee may be appointed, to whom the custody of his property is committed.

When there is reason to believe that a person, owning to unsoundness of mind or habitual drunkenness, is incapable of managing his affairs, a petition lies, generally from anyone interested in his person or estate, for the issuing of a commission. Upon reception of the petition, the court directs a commission to issue, comprising one or more persons, generally required to be learned in the law, directing the inquiry by commissioner and jury, as to the facts of the petition.

The commissioner, being thus authorized, directs a precept to the sheriff, commanding him to summon a jury, who, when they meet, hear testimony—on both sides if desired—on the matter submitted to them; and, after being charged by the commissioner as to the law of the case, return a finding as to whether, from the lunacy or habitual drunkenness complained of, the respondent is incapable of managing his estate.

Should the finding be in the affirmative, the court will appoint a committee who will take charge of the estate of the respondent, subject, however, to the absolute right of the respondent to traverse the finding, *i.e.*, to put in a formal denial of it, in which case the question is determined before a court and jury, in the same way with any contested fact. Whether the alleged lunatic really is mentally capable as to a traverse, and desires that a traverse should be

entered, will be determined by the judge himself by personal examination or otherwise.

It will be seen that the point at issue under a commission of lunacy or habitual drunkenness, is the general, and not the partial or particular, incompetency of the party who is the subject of the inquiry. It becomes, therefore, a simple test: Is the respondent prevented by mental unsoundness or habitual drunkenness from managing his own estate? If not, no matter how responsible he may be for crime, or capable at particular times of making a bargain, the finding must be against him. The certificate of incapacity for managing property has no necessary bearing on the freedom of the subject, but it has the effect only of suspending his civil functions.

As a rule, it is only in cases of mental aberration specially requiring such a course that the proceeding is undertaken. Many of the cases have already been certified as insane; others are actually under restraint; and in the great majority of cases it is usually found that entire unanimity prevails among the relatives as to the advisability of the proposed action at law. It is only occasionally and at rare intervals that the proposed step is opposed, either by the person himself or by some of his friends. It should be remembered that a certain degree of insanity *per se* is not a sufficient ground for declaring a person unfit to manage or direct the management of his affairs.

For instance, mental weakness, immoral conduct, eccentricity, depression of spirits, or mental excite-

ment, are all of them, unless pronounced, not inconsistent with such capacity. Furthermore, a person may be the subject of delusions or of hallucinations, or of both, but so long as these do not bear directly on his business affairs, or markedly disturb his private life so that business is much neglected, and unscrupulous people thereby acquire undue influence over him, he still may be held capable of managing his own affairs.

The point to be kept clearly in view is: Does his insanity or habitual drunkenness indubitably interfere to the detriment of his interest in the care of his property? Upon a recovery of competency, the commission, on due cause shown, may be suspended.

XVIII.

INSANITY, A GENERAL SURVEY.

"Canst thou not minister to a mind diseased,
Pluck from the memory a rooted sorrow,
Raze out the written troubles of the brain,
And with some sweet oblivious antidote
Cleanse the stuffed bosom of that perilous stuff
Which weighs upon the heart?"

MACBETH.

"Yes, we believe we can!"

MODERN PSYCHIATRIST.

INSANITY, A GENERAL SURVEY.

THERE is no doubt of the great prevalence of insanity today, which is evinced in many conspicuous ways, and of its apparent marked increase in late years.

While these statements may not be disputed, the writer disclaims to be one who looks forward with grave apprehension. He confesses to utter lack of sympathy with those who paint the future in darkest hues, and who ask us to believe that when the present century draws to a close more people will be in than out of the asylum. With all such gloomy forebodings he has slight patience.

Modern science clearly designates the prime factors that are at work in causing this extraordinary situation. It is proper to call attention to the fact that many so-called mental ailments are really affections of bodily organs, such as the kidneys, heart and the arteries; and on the other hand grave disorders of these same parts have origin in the imperfect action of the nervous system. This mutual dependence and relation is repeatedly pointed out by numerous examples in the practice of the general physician.

A merchant who has failed in business gives way to worry, loses sleep, neglects to take sufficient

amount of food and exercise, until the healthy tone of his nervous system becomes impaired. If these harmful conditions continue active, the poisonous waste products of malnutrition will be retained in the system, resulting in time in disease of the kidneys. Each aggravates the other, until the heart and arteries (hardening) are involved, and the health, both mental and physical, may be sacrificed.

The importance of nervous energy in sustaining the integrity of all portions of the body may be seen in a simple experiment. Cut a muscle off from its connection with the nerve centres, and in a few hours indications can be shown by the microscope that its structure is undergoing a change. I have seen a large sloughing ulcer form in a day or two as a result of spinal-cord disease. It is not improbable that pneumonia and other acute affections often arise from lack of tonicity of the central nervous system —nervous exhaustion. It is a well-known fact that in the great majority of cases, mental disease is produced, not by any one special cause, but by a series of vicious conditions. The soil, so to speak, is prepared for the seed that eventuates in insanity.

Sometimes we are asked: How can you gauge the mental status of obscure and difficult cases? If the questioner be a bridge-builder, the answer may be that it is done as he acts in constructing a bridge —by working along scientific lines. There are spaces to be measured, material to be weighed, the sustaining load estimated, and the thrust and other pressure problems adjusted. Perhaps a simile taken

from the automobile industry may make it plainer. In this instance the tell-tale sounds point to the trouble. It may be a clank, a grind, or a rattle, but each one reveals the weakness or shortcoming to the trained ear. In like manner the skilled physician goes about his task, and by systematic study and examination of the ungeared mechanisms of the mind the defects in mental processes are discovered and harmonized.

In the medical profession, as elsewhere, the spirit of the times is distinctly progressive. More than ever before the prevailing trend aims to place on a higher plane the conditions of living, and to make, through scientific methods, our life more hygienic and wholesome. This philanthropic movement seeks to lessen the sum of human suffering by prevention, rather than by attempting the cure of the disease. The heroic warfare that is now being waged against the ravages of tuberculosis—a disease closely related to insanity—is a concrete instance in point.

The causes of mental breakdown are broadly divided into two classes, called predisposing or remote, and exciting or immediate. They have been aptly compared respectively to a train of gunpowder and a match.

The predisposing causes comprise such basic ones as heredity, age, sex, occupation, civilization, and so on. Heredity implies a constitutional tendency to mental disease; age, that the several stages of life expose the subject to special risks; sex, that some types of disease are confined in part or whole to one

or the other sex; occupation,* in that callings have germs of unusual danger; and that civilization emphasizes racial traits.

The more highly enlightened nations are more prone to mental disease than less favored races. The exciting causes are very numerous, and in turn are divided for the purpose of study into physical and mental. The former consists of the indirect sources of disease that, by undermining the general health, affect the mind. These are some of the prominent ones:

Physical: Ill health, brain disease, intemperance, narcotics, injury to head and spine, syphilis, consumption, blood-poisoning, adolescence, change of life, senility, sunstroke, epilepsy, masturbation, puerperium, extreme pain, chorea, and uterine disease.

Mental: Nervous exhaustion, domestic trouble, adverse circumstances, mental strain, disappointed affections, excitement, emotions uncontrolled, fright, bereavement, grief, care and anxiety, trouble and disappointment, excessive anger, excessive joy, homesickness, shock, hardship and exposure, overwork, religion, spiritualism, and want of occupation.

It may be seen, therefore, that the predisposing factor is paramount, and when it is strong the exciting one need be but slight. I have known the loss of ten dollars, by a penurious man with strong hereditary taint, to be followed by a mental disorder which ended as incurable insanity, and the

* See page 57.

sight of blood to throw a person who had been previously deranged into a frenzy of excitement from which he did not soon recover. One patient was made hopelessly insane at the prospect of securing, in his trade, a good situation.

There are some brains so susceptible that slight causes are sufficient to unsettle them. The fond mother who attributes her daughter's insanity to a love affair does not understand that the mental fibre of a well-constructed girl does not break in this way. Between this extreme predisposition and the insanity-proof brain there is every shade of susceptibility. In our powers of endurance we are like a chain—only as strong as the weakest link. When the strain comes we, too, give way in the weakest part. The flaw may be in the brain, the lungs, the heart, the kidneys, or perhaps in some other organ or tissue. With psycho-neurotics the vulnerable point lies in the brain; and frequently in them, as a consequence, the development of some form of insanity occurs.

No branch of medicine presents so many topics of interest and so large a field for fascinating study as that of psychiatry. The disease-forms are numerous, and the individual variates so abundant that there is no cause for want of interest if pursued in a truly scientific spirit. A few characteristic types have been selected for study, which not only afford some knowledge of the subject, but have been chosen because they are ones that give good promise of recovery.

In earlier times—say, a century ago—the concep-

tion of insanity was so simple that all mental diseases could be classed under three principal headings, viz., mania, melancholia, and dementia. Cases that showed excitement were called maniacal; those depressed, melancholic; and persons enfeebled in mind, demented. These designations indicate a superficial grasp of the subject which required little or no skill to apply. Since intensive investigation has been given to psychiatry great strides have been made in the knowledge of mind and brain diseases. They have been, and are, studied from every aspect—physiologically, pathologically, and psychologically, as well as clinically and in the laboratory. With abundance of psychopathic material and the development of definite methods of research mental science has obtained the respect of the scientific world, and is being built on a broad and firm basis.

Psychasthenia. The symptoms displayed in a large group of patients are of an exhaustion type; and a considerable proportion of these have developed upon a neurasthenic basis. In these cases a profound exhaustion of the nervous system is a characteristic feature, which has its beginning in neurasthenic symptoms, such as headache, morning fatigue, loss of endurance, irritability, insomnia, flatulency, constipation, vertigo, flushings, muscular twitchings, and also diminished power of attention, defective mental application, and difficult concentration. The real nature of the disease is based on a kind of chronic auto-intoxication, resulting from the effects of exhaustion upon nervous tissue.

The prevalence of psychasthenia is often attributed to a rapid, irregular, and extravagant manner of living, with little relaxation, and a lack of sufficient and wholesome sleep in persons actively engaged in business, social functions, or overtaxed with the exacting duties of a large household, besides excessive mental application. The worry attendant upon these various activities is an important consideration. The disease may appear at any age, but is most often met between the ages of 25 and 45, the period during which the greatest mental strain occurs. The onset of the disease is gradual; its course is often protracted; and the convalescence slow.

It is amenable to judicious treatment. In milder cases a trip to the mountains or a sea voyage may relieve the asthenic state. When this is impracticable, removal from the customary surroundings into a quiet, restful, but attractive place may accomplish the same result. In the more severe cases there should be a well-regulated routine, with a definite amount of sleep, nourishment, mental and physical exercise, alternating with rest and relaxation, together with baths, electricity and out-door life.

Thyroigenous Insanity. There is a small but unique series of cases, whose mental trouble is attributable to disturbance of the thyroid gland of the neck. These forms, which are three in number, are called cretinism, myxœdematous insanity, and the insanity accompanying exophthalmic goitre.

The first two forms are occasioned by an absence of glandular secretion, and in the latter there is over-

activity of the gland. In cretinism there is entire loss of function of the thyroid gland, associated with defective mental development. Cretinism is mostly endemic in mountainous regions, both abroad and in this country. Sporadic cases, however, occasionally occur. The disease makes its appearance usually in the first or second year. Mentally the patient fails to develop, presenting the symptoms of a five-year-old child. The child is dull, stupid, indifferent, sleepy, and unable to care for himself. Physically, the head is large, and the neck short and thick, the nose broad, the ears prominent, the skin thickened, as if padded, and in places hangs in folds; the limbs and body are shortened and pudgy; the tongue and lips are thick, the hair scanty and the teeth poor; the speech is inarticulate, the movements unwieldy, and the gait slow and awkward. The patient has little power of resistance, and readily succumbs to intercurrent disease.

Medical treatment is of no avail after the disease has fully developed.

The mental disturbance manifested by myxœdema, which usually comes on in adolescence, or later, is a progressive mental enfeeblement, accompanied by characteristic symptoms. Mentally these patients are unable to collect their thoughts, and with difficulty comprehend written or spoken language. The memory is defective. They are often anxious, dejected, and apprehensive, and at times sulky and ill-natured.

Physically, the skin becomes thick, dry, and rough. The lines of the face are obliterated; the features are

dulled, the eyes sunken, and the lips thickened. The hair of the head and face is scant, discolored, and atrophied. The voice also is changed, and the speech is slow and difficult.

Thus far we have seen the effects of absence or diminution of thyroid secretion. We can have, on the other hand, abnormal states dependent upon an increased secretion of the gland, and altered quality of the secretion as well. The symptoms-complex of exophthalmic goitre insanity are palpitation of the heart, a rapid pulse, prominent eye-balls, and mental excitability, with an enlarged swollen neck.

We see, then, if the secretion has suffered diminution we have myxœdema; but if the amount of thyroid juice poured into the blood be in excess, then exophthalmic goitre insanity may be produced. In one case there is enlargement of the gland; in the other the size is diminished. Here the pulse is rapid; there, slow—the skin soft, warm, inclined to sweat; there, thick, cold, dry. On one hand, there is excitability, increased mental irritability; on the other, slowness and dullness of mind. Both of these latter types are readily cured: one by the administration of thyroid extract, made from the gland of a sheep; and the other by lessening the mass of the gland by a surgical operation.

General Paresis. This cerebral disease is, without doubt, the most picturesque syndrome of all the long category of disease-types to which flesh is heir. It has occupied a conspicuous place in the discussions of physicians the world over since

its discovery by French observers in the early part of the last century. The space given to it in medical literature is voluminous. Its cause was long in dispute, but latter-day results of laboratory investigation have fully confirmed the convictions of psychiatrists of its intimate relation to syphilis.

A description of the early symptoms of paresis will be found on page 225. This early stage is the seed-time or opportunity for action, when endeavor towards treatment can be undertaken with much confidence of success. This is the time to put forth effort to heal, before the ravages of this deadly poison have destroyed irrevocably the delicate structure of the brain-cells in the cerebral cortex, the seat of the higher activities of the mind.

There are several varieties of paresis of which the more important are as follows:

The galloping form, which acts so rapidly, as the name suggests, that it runs its course in a few months, or even weeks.

The melancholic form, in which the symptoms have a melancholy tone, rather than, as usual, that of elation.

The spinal form, a group of cases where the first manifestations of the disease have their beginning in the spinal cord.

The juvenile form, occurring in early life, when the subject is under 20 years of age.

When syphilis and alcohol, the twin scourges of the human race, are subdued, the blight of insanity will in a large measure disappear from amongst men.

Dementia Præcox. The springtime of life is a fruitful season in the development of mental disease. Adolescent insanity, or dementia præcox, as it is technically designated, forms a large class of cases. The term præcox refers to the precocious tendency of the disorder to lapse early into dementia. Nearly a third of the admissions to mental hospitals come under this class. It is estimated that about 60 per cent. of these patients are stricken before the twenty-fifth year. Heredity, either inherent or acquired, is an important factor. There is frequently in early life a history of convulsions, and great susceptibility to alcohol, as well as the absence of sexual impulses, or their early or unnatural development. Many of these persons exhibit in youth peculiarities, such as seclusiveness, affectation, eccentricity, precocious piety, impulsiveness, and moral instability.

The disease is usually divided by authors into three well-defined groups: (1) the active, excitable form; (2) the stuporous form; and (3) the form with ideas of persecution.

Dementia præcox is a stubborn disorder, which does not yield readily to treatment. But it is beginning to dawn upon investigators that the secretion of the so-called "ductless glands," which discharge their subtle fluid into the blood-stream, is defective, and to this cause the disease in great part owes its existence. When this fault may be remedied, which is likely to occur in a not far distant future, then will it find place in the list of mental ailments readily curable.

Manic Depressive Insanity. Another remarkable psychosis (mental disorder) which we will describe is one that probably contains numerically more insane persons of both sexes than any other that comes under the eye of the psychiatric physician. In modern times it is known under the title of manic-depressive insanity. Formerly it was called by a great number of names, according to the prominence given at the time to its varied symptoms.

Manic-depressive psychosis is that form of insanity which recurs in definite forms at intervals for long periods, and in some instances throughout the life of the individual. The disease almost always appears independently of external causes. It is founded principally upon a defective hereditary endowment.

Symptomatically, the attacks are of three types: (1) excited, (2) depressed, and (3) mixed. The latter form is characterized by a combination of the symptoms of the other two types in an alternating manner.

Manic-depressive attacks present a very marked tendency to recur periodically. The recurrence of attack is separated by lucid intervals, in which the patient returns to a normal condition. The duration of the attack may vary from a few days to several years, but the common duration is from six to twelve months. The depressive attacks average longer than the others. The lucid intervals vary considerably also in length, from a few days or weeks to many years, and they stand in no definite relation to the duration of the attack.

Up to the present time the disease has baffled every effort to subdue it by treatment. But, doubtless, when its true nature is better understood, means will be found to bring it under subjection. To be sure, many cases now get well, but it seems to arise spontaneously rather than by design. Of course much can be done, and is done, to ameliorate the lot of many of these cases by medical, hygienic, and prophylactic methods. It is remarkable that there is but little mental deterioration of the mind, even after the lapse of many years.

Paranoia. Logically, paranoia, the last psychosis in the group, should not perhaps find place in this series, because it does not readily yield to treatment. But on the contrary it seems proper to include it, for it is one that is much referred to, both in public print and in private circles, especially as it often figures in court trials. The title "paranoia" is very loosely used by persons usually to signify a disorder marked by delusions of persecution. There is also much confusion about the term. True paranoia, compared with other disease-forms, is rather rare, although the impression seems to be that it is a prevalent type of mental disease. This notion is current because there are many paranoid states found in several other disease entities, especially in dementia præcox, where it has a spectacular place.

Paranoia is a progressive psychosis, based on a defective nervous constitution, characterized in its full development by fixed, systematized delusions,

without marked mental disorder outside of the special delusions. It was formerly called "monomania," which implies an insanity in one special direction. It is more common in men than in women. In most cases there is found on inquiry a history of morbid heredity, with stigmata* (signs) of degeneration, such as ill-shaped head and ears, or other salient physical malformation. Hallucinations (by which we mean false perceptions, as sight and hearing) are infrequent. The disease generally begins between the ages of 25 and 40.

The onset is not well defined. Its beginning is commonly slow and insidious, so that it is difficult to trace the early time of its appearance. There is a developing stage, lasting many months, even a few years, during which the subject shows only certain eccentricities and peculiarities of conduct. This is seen in his egotistic manner, seclusiveness, dreamy states, and variable moods.

The first period is described as the stage of mild depression and that of "subjective analysis." There arises in him vague ideas of conspiracy and distrust, in which he feels there is a disposition on the part of others to deprive him of his rights. Generally his feelings of suspicion assume definite shape. He now openly asserts that he has secret enemies who are trying to injure him. These delusions of persecution may be vague, or they may

* See page 50.

be sufficiently pointed to enable the patient to accuse certain persons of intent to harm him. When this takes place he becomes, through a spirit of revenge, a dangerous character.

One case under the writer's care, a man of good intelligence, developed paranoia. He was an artist, and popular with his associates. While reserved and self-centered, his peculiarities were attributed to his "poetic temperament." For some years before the attack he was exacting, and even tyrannical, towards his wife and children, but he maintained his self-control before others. Doubt and suspicion he read into every act, every word, and he even searched the daily news for evidence of plots against himself. He went about the house at night with deadly weapons, keeping his wife in so nervous a tension that her health failed, and her life became a burden. He lived in a thickly settled neighborhood of a small town.

One summer evening he appeared at the rear door of his residence and discharged his gun, which he held in his hand. He was promptly taken in hand by the authorities, who found him upon examination and trial to be insane. Among this class may be found some of the most notorious characters of the criminal insane. Posing as reformers, they occasionally menace the safety of public men. This phase is called the "persecutory stage."

Sooner or later, in connection with these persecutory delusions, there may appear ideas that are termed "delusions of grandeur." The latter are curi-

ously enough the outgrowth from the former. The patient, though logical in his reasoning, bases his belief on false premises. He infers that his enemies, owing to jealousy, persecute him, which, in turn, is due to his wonderful merits or importance.

The patient's mind does not deteriorate, as in other types, and the disease seems to remain stationary for many years.

The general plan of treatment which has been pursued in late years may be outlined. The conditions commonly encountered in recent cases are those of debility, indicating a considerable reduction in the general health and a loss of vigor in the vital powers. There is frequently an impaired function of the bodily organs, especially those of digestion and elimination, complicated by mental symptoms. There is present, therefore, not only a state of exhaustion, but also a toxic condition of the blood known as autointoxication. The mental concomitant may be either excitement or depression, stupor or delirium. The morbid process is the same, whether the mental symptoms are manifested by active excitement or by apathy.

In either event rest and quiet should be enjoined, in carrying out a *régime* which has for its object the support and building up of the patient's health. For this purpose nutritious and easily assimilated food is administered in the form of eggs and milk and similar articles of diet; at the same time the judicious use of water in its various modes of application is enjoined.

At a certain stage in the improvement of the patient, regulated exercise, fresh air, and appropriate diversion and occupation amid cheerful surroundings promote the recovery.

The insomnia, which is so distressing a symptom of these cases, has come to be regarded as the manifestation of extreme debility and autointoxication. Hence, the indications are to avoid as far as possible hypnotic drugs, which disguise the important symptoms by stupefaction, and impede the beneficial effects of the curative agents. They have also the reputation of working harm in the delicate brain tissues by inducing cell degeneration when their use is much prolonged.

The list of accredited drugs is large, giving ample scope for the exercise of choice and skill. But we find that there is a growing tendency in the practice of medicine to put less reliance on mere drugs, and more and more on other modern means of cure, which are much in vogue at the present day, such as the diversified forms of the application of electricity, baths, massage, rest, occupation and diversion.

A prominent physician recently said: "Medicine is making extraordinarily rapid strides, and probably the day will come when we shall not want much from pharmacy. We have learned in the last fifteen or twenty years not to be afraid of fresh air; we have learned how to use water; and we are learning how to use food. We shall probably be able to manage these forces some day that will get a great many people well without writing a prescription."

There is good authority for the statement that from 10 to 15 per cent. of the population at large could not, under ordinary circumstances, excluding the influence of acccidents, be made insane. This assertion is not a rash one, although we frequently hear it said that insanity is an affliction to which all mankind are alike subject. If, then, 10 to 15 per cent. of the race are proof against mental breakdown, even in this age in which insanity is so prevalent, is it not encouraging to hope that under better conditions than we now have, a much higher, yea, a very high, ratio may be attained, until mental health shall cover the land as the waters cover the sea?

XIX.

A STUDY OF THE DYING STATE.

"Death is the ugly fact which Nature has to hide, and she hides it well."

DREAMTHORPE.

"But life is sweet, though all that makes it sweet
Lessen like sound of friends' departing feet;
And Death is beautiful as feet of friend
Coming with welcome at our journey's end."

LOWELL.

"Come, lovely and soothing death,
Undulate round the world, serenely arriving, arriving,
In the day, in the night, to all, to each,
Sooner or later, delicate death."

WHITMAN.

A STUDY OF THE DYING STATE.

FOR many years past the writer has given attention to the signs and conditions relating to the dying state. The physicians whose practice is chiefly confined to hospitals and similar institutions doubtless have opportunities for observing the dying, opportunities which are not usually shared by physicians exclusively in private practice. In the latter instance it is rare for the practitioner to be continuously present at the bedside of the dying patient, while in the former it is the exception for him to be absent. My records of deathbed studies comprise about fifteen hundred personally observed cases.

The sentimental side of the subject has for every one a common interest. It has always been inculcated that a religious life tends to smooth the pillow in the hour of death. I make no issue with religious thought and teaching. No one surely could contend that the consolations of religion do not greatly mitigate through life one's view of the final end, or that they do not serve to allay the apprehensions that are prone to arise from time to time in timid persons who are accustomed to look into the future with vague feelings of doubt and fear. While this assurance fortifies the mind of the believer during health, it cannot be affirmed that it totally brings him into a separate class from the unbeliever at the crucial moment,

so far as it concerns the mortal fear and dread of death.

Death being a natural process, "the wind is tempered," as it were, "to the shorn lamb." There seems to come upon the sensibilities of persons generally approaching a normal death, irrespective of social or religious status, a sort of benumbing or becalming influence, which settles, as it does in a large majority of cases, into a peaceful sleep, deepening as the end comes nearer, into a state of profound unconsciousness. It has been aptly said that we come into this life in a stupor, and in a stupor we depart. In man's physical death, the comparison of the sons of men to beasts by the preacher in Ecclesiastes—"As the one dieth, so dieth the other"—is calculated to wound one's pride, yet it is not so far from the truth after all.

Respecting the modes of death and the sensations of the dying, I have seen two cases in whom an extreme terror wrought the mind of the sufferer into painful evidence of alarm, one in whom an ecstasy of joy seemed to translate the spirit into a heavenly bliss, and one in whom remorse was plainly dominant. In the greatest number of the dying, however, the closing lines of Bryant's "Thanatopsis" fitly describes the scene, in which the sleeper is "Like one who wraps the drapery of his couch about him and lies down to pleasant dreams." At the least, 90 per cent. of my cases died in an unconscious state.

Early in these studies I was attracted by a phenomenon that is a conspicuous one, which consists of an up-and-down, rocking movement of the head, due

to sternomastoid breathing. While this sign is so common that every one probably has noticed it repeatedly in the dying, no reference to it can be found in textbooks or in descriptive accounts of the numerous symptoms attending the dying state.*

After grave symptoms have set in, and generally not very long before death supervenes, it will be seen that the head of the patient moves up and down in a rocking fashion, synchronously with the breathing; or, rather, it may be better described as a forcible raising of the head and chin, giving a fanciful beckoning motion to the head. This action, a veritable death's call, is brought about by the strong contrac-

*Other signs of the dying state, not that all occur in any individual case; some are antagonistic, while others are local symptoms of a more general condition mentioned: Extreme general exhaustion (adynamia); general muscular relaxation (collapse); cold perspiration, local or general; cold blue extremities; mottled skin; purpuric extravasation, local or general; delirium; coma (coma vigil); insomnia; characteristic odor; convulsive twitching (subsultus tendinum); convulsive seizures; involuntary discharges, including semen in men; general spasticity of muscles; legs rigid; motor reflexes abolished; picking at bedclothes (carphologia); subnormal temperature; elevated temperature (calormordox); cachexia; pallor or flushing; color of face brown, black, livid, or lead color; skin of forehead rough, distended, and parched; collapsed temples, and in infants sunken anterior fontanelle; sharp nose; Hippocratic facies; loss of facial expression; cyanosed gums, lips, and skin; tongue dry, brown and fissured; ears cold, contracted, and lobes turned out; grinding of teeth; tongue and lips tremulous; falling lower jaw; relaxed lips; masticatory efforts; inability to swallow; hollow eyed; failing sight; immobile eye; glassy eye; eyeballs elevated; eyelids only partly closing in sleep; dilated pupils; strabismus; conjugate turning of eyeballs; finger nails discolored; finger tips shriveled; feeble heart-sounds; feeble or running pulse; dyspnœa; shallow breathing; spasmodic breathing; rapid or slow breathing; Cheyne-Stokes breathing; weak voice; mumbling speech; death-rattle.

tion of the two sternocleidomastoid muscles, in an effort to facilitate breathing.

It should be stated here that the sternocleidomastoid groups are accessory muscles of breathing, and are brought into activity whenever there is unusual stress in the respiratory function. This is not necessarily a conscious act; in fact, it seems to me that the movement is less restrained when entirely freed from the control of the will, as in the unconscious state. Let me add in passing that sternomastoid breathing may be seen in dying animals as it is in humans.

For purposes of study and observation, I have been in the habit of dividing the dying state into three stages. This is but an arbitrary division, for Nature in this, as in other manifestations, seldom makes sharp boundaries by rigid demarcation. The division line of the first two stages is not only ill-defined, but it is not marked by any particular kind or set of symptoms.

We recognize the presence of the second stage simply when the exhaustive symptoms of the first stage have deepened into a more intense degree of gravity, together with the advent of new symptoms of like import.

The onset of the third stage is, on the contrary, easily recognized. It begins whenever sternomastoid breathing sets in, irrespective of the presence or absence of other symptoms. In fact, it will be noted that this sign is always accompanied by indications of the gravest character. Every other symptom of the dying state may at times improve or even pass off, but after

sternomastoid breathing has once begun the patient very seldom or never revives, passing at varying rates into the decline surely and progressively to the end. One may see weirdly in it the portal to the valley of the shadow of death, from which, once entered, no one ever turns back. Truly can it be said: "And there is no healing when a man cometh to (this) end, and none was ever known that gave release from Hades."

By the aid of a number of my hospital medical friends, I have endeavored to ascertain the average duration of sternomastoid breathing, or the last stage of dying, a point hitherto unsettled. The results of the inquiry are interesting; the records cover one hundred cases. There was a wide range of latitude between the extremes; the longest time noted was seven hours, and the shortest time one minute. Between these extremes considerable variation was shown, although the largest number fell into the period between ten and forty-five minutes. The median length of time that it lasted before death was twenty minutes.

Formerly, I had the impression that this important sign was never absent in the dying, being present even in cases of sudden death, appearing in the one or two final gasps. This belief, had to be modified, for I am assured by a longer experience that there is a small proportion (from 5 to 10 per cent.) in which it may not be detected. Curiously enough, in one or two instances I have known it to cease for a few moments only to be promptly resumed.

While it is a conspicuous feature which is commonly unmistakable, which may be recognized even by the most casual observer, in some cases it may be overlooked, because the nurse or watcher at the bedside may not understand just what she is expected to look for, and it may thus escape her notice. Sometimes it may possibly be absent owing to the resistance given to it by the restrained position of the patient's head, or by the unusual way the head is pillowed.

Aside from its scientific value as an observed fact in disease, the question may be asked concerning its practical bearing.

We may say, then, of sternomastoid breathing in this connection that it is a reliable sign of approaching death, and one which may serve the purpose of the physician in forming an estimate of the length of time the patient may live, without depending on signs of less value; its onset indicates that death is probably very near at hand, generally within half an hour; it is a definite symptom on which the physician may predicate his instructions or advice; it is a sign to mark the time when the family may be summoned to the bedside, or one which may regulate the other details of the death-chamber. These and other practical purposes which it may serve will readily suggest themselves to the thoughtful observer.

GLOSSARY.

Acheron. A river in Hades, over which the souls of the dead were ferried by Charon.
Action, involuntary. Performed independent of the will.
Action, reflex. An impression conveyed to the centre and reflected out again by the action of the nervous system.
Adolescence. The age of youth (14 to 25).
Agnosia. Loss of perceptive power.
Agoraphobia. Morbid dread of open spaces. Dread of crowds of people.
Alienation. Mental derangement; insanity.
Aliquando gaudet lucidis intervallis. At times he enjoys lucid intervals.
Amnesia. Lack or loss of memory.
Aphasia. Defect or loss of power of expression by speech, writings, or signs.
Apraxia. Loss of power of performing coördinated movements.
Aprosexia. Inability to fix the mind on any subject.
Astasia. Motor incoördination, with inability to stand.
Astasia abasia. Inability to stand or walk.
Atavism. Inheritance of characters from remote ancestors.
Ataxia. Failure of muscular coördination.
Attention. The power of mental concentration.
Audile. One in whom sound images are especially distinct.
Autistic thought. Heart to heart communing with one's self.
Auto-intoxication. Toxic condition following poisonous products retained in the system.
Automatism. Performance of acts without conscious volition.

Bicetre. A hospital in Paris for insane men.
Binet-Simon scale. A method of measuring intelligence.
Bulimia. Insatiable appetite.

Calormordax. "Biting heat."
Carphologia. Picking at the bedclothes.

Catalepsy. Neurosis marked by suspensions of sensibility and voluntary motion.
Catatonia. A stupid form of melancholy.
Celibacy. The unmarried state.
Claustrophobia. Morbid dread of being in an enclosed space.
Coma. Stupor or deep sleep, from which one cannot be wakened.
Coma vigil. Stupor with wakefulness; a grave form of coma.
Compulsion. Morbid controlling ideas that are felt to be directed by others.
Consanguineous marriages. Unions between near blood relations.
Coördination. The harmonious activity of those parts that coöperate in the performance of any function.
Cross-fertilization. Cross-breeding or grafting.

Day-dreaming. An idle exercise of the fancy; reverie.
Délire du toucher. Fear of contact, of contamination, of infection.
De lunatico inquirendo. The proceedings in law to put a person under a guardian.
Demoniacal possession. Ancient belief that the insane were possessed by the Evil One.
Deviates. People who vary from the normal standard.
Diagnosis. The art of telling the nature of an attack of disease.
Dyspnea. Labored or difficult breathing.

Echolalia. Echo-speech. Insane repetition of words heard.
Echopraxia. Insane repetition of actions seen.
Ego. The personality, or personal identity.
Exorcism. The act of driving out evil spirits.

Facies Hippocratic. Appearance of face indicating impending death.
Folie du doute. Insanity of doubting.

Hematoma auris. Blood tumor of the ear.
Hallucination. A false perception without an objective reality.
Heredity. Predisposition transmitted to offspring.
Hyperprosexia. The total absorption of the attention; absentmindedness.
Hypnotism. Induced sleep.
Hypochondriasis. Morbid anxiety.

Illusion. A false perception with an objective reality.
Imperative ideas. Persistent morbid thoughts.
Impulsion. Morbid irresistible ideas that arise spontaneously the mind,

In extremis. At the point of death.
Insanity-proof. Ordinarily incapable of becoming insane.
Insomnia. Wakefulness; inability to sleep.
Internal speech. Thoughts not spoken.

Kinæsthesia. The sense by which muscular movements are perceived.

Lucid interval. A period between attacks of insanity.

Megalomania. Delusions of grandeur.
Melancholia. A form of mental disease characterized by depression.
Monomania. Insanity on a single subject.
Moral sense. The power to distinguish right from wrong.
Mutism. Dumbness; inability to speak.

Neurasthenia. Condition due to nervous exhaustion, irritability, and fatigue.
Neurosis. Any nervous disease.
Non compos mentis. Unsound mind.

Obsession. A persistent idea or besetment.
Organic sensation. Feelings that arise from the internal organs of the body.

Panophobia. Vague and persistent dread of some unknown evil.
Paranoiac. A crank, an erratic person, with persecutory ideas.
Paresis. Slight or incomplete paralysis.
Personality. The ego or self.
Phobia. Morbid fear, or dread.
Phonism. A sound is heard following a bright light.
Photism. A light is seen when a sound is heard.
Prognosis. The prediction of the outcome of an attack of disease.
Prophylaxis. Prevention of disease.
Psychosis. Any mental disease.
Psychasthenia. Nervous exhaustion with marked mental symptoms.
Psychiatry. The treatment of mental disorders.
Psychology. Science of mind.
Psychotherapeutics. The art of treating mental disease by influencing the mental life.
Puberty. The age when the generative powers are established.

Salpetrière. A hospital in Paris for female insane.
Sensory centres and nerves. Pertaining to sensation or feeling.
Simulation. Feigning insanity by one already insane.
Sterilization. Practical unsexing.
Sternomastoid. Muscles that rock the head.
Stigmata of degeneration. Certain mental and physical signs denoting unstable constitution.
Strabismus. A squint.
Symbolism. Representation by signs or symbols.
Symptoms, abstinence. Symptoms following abrupt withdrawal of a drug.
Symptoms, objective. Symptoms observed by the physician.
Symptoms, subjective. Symptoms noted by the patient only.

Tort. Any wrongful act.
Tuberculosis. Consumption.

Valetudinarian. One in delicate or infirm health.
Valhalla. Happy hunting grounds of the savage.
Vertigo. Fainting.
Visualize. The power to project mental images externally.
Volition. The will.

INDEX.

Abstinence symp. morphine, 290
Abulia, 14, 193
  aprosexia, 198
  attention weakened, 197
  general, of motor type, 196
  Napoleon's control of sleep, 195
  of sleep, 195
  systematized, 194
  weakened will power, 193
Acheron, fog of, 287
Action, involuntary, 167
Adventure, an, 117
Affections, disappointed, 17
Age, 113
  adolescence, 113
  old, 231, 233
  puberty, 166
Agoraphobia, 57
Alcoholism, 17, 61, 74
Alienation, origin of term, 282
Amnesia, 194
Amusements, 56
  ancient Egypt, 125
Anger, 24, 47, 265
Anguish, 59, 126, 288
Anxiety, 95, 99
Appetite, change of, 230
Aprosexia, 198
Atavism, 73, 207, 211
Atheism, 11
Attention, 197
Audiles, 218
Autism, 41
  castle building, 183
  day dreaming, 183
  insane delusions, 188
Autism, insane thinking, 183
  lawless heart, 182
  make-believe life, 185
  Messiah, 184
  normal secret thought, 183
  poet's secret longings, 187
  Queen of Holland, 184
  symbolism, 187
Average, law of, 79
Asylum, private, 5

Bacteriology, 35
Barbarism, insanity rare in, 160
Beggars, insane disguised as, 165
Bethlehem Hospital, 5
Bicêtre Hospital, 5
Binet-Simon Scale, 60
Blaspheming, 19
Bleuler, 184
Blues, the, 74, 119, 287
Blind Tom, 121, 201
Blood tumors, 166
Bobolink, 15
Bodily movements, 162
Borderland, 13, 51, 179
  normal traits, 14
Born well, 174
Boswell, 59, 115
Brain, cells and nerves, 83, 84, 119
  fine mechanism, 83, 86
  insanity-proof, 317
  law of growth, 83
  membranes, 241
  nourishment, exercise, rest, 83
  overtaxed, 105, 277
  storehouse, 85

Brain, telephone system, 86
  weight, 60
Breathing, sternomastoid, 335
Brodie, Sir Benjamin, 35
Brougham, Lord, 146
Bulimia, 230
Burton's Anatomy of Melancholy, 287
  comedian, 275

Cambrensis, 19
Care of the Mind, 83
Carpenter, Dr., 102
"Castle" building, 41, 183
Catatonia, 164
Causes, mental breakdown, 7, 16, 316
  physical, 288, 316
Celibacy, 48, 58
Chains, 6
Character, 172
Charles VI. France, 47
Chesterfield, Lord, 121
Childhood, 36, 41
Child training, 42, 78
  make-believe, 36
"Christian Science," 246
Church, call out in, 14
Civil condition, 48, 58
Civilization, 16, 54, 161, 316
Claustrophobia, 57
Clocks, seventy-year, 131
  insane, 276
Club, at Deviate, 207
Cold and hunger, endurance, 47
Compulsion, 123
Confinement, bad motives, 232
Conklin, 70
Consanguineous marriages, 76
Conscience, guilty, 126
Consciousness, disassociation, 156
  two streams in, 32
Contract, invalidate, 294
Contract, false representation, 294
  great importunity, 294
  imbecility, 294
Constitution, unstable, 75
Consumption, 25, 173
Contagion of Hypos., 119
Contamination, 16
Coriolanus, 103
Courtney, 89
Country living, 16, 98
Cowper, 61, 124, 162
Cretinism, 319
Cross-fertilization, 76

Damnation, eternal, 16
Darwin, 33
Day-dreaming, 40, 183, 264
Deaf-mutism, 76
Death, before, regaining mind, 18, 24
  state of mind at, 137
Deep unto deep, 161
Degenerate, 72
Delire du toucher, 180
Delusions, act product of, 299
  altered identity, 250
  disturbance of vital feeling, 252
  feeling and ideation, 245
  insane, 245
  on general topics insane reason well, 251
  sense of adequacy and inadequacy, 248
  sense of fear, 249
  test of insanity, 299
Dementia præcox, 323
Demoniacal spirit, 4, 12
Deviate Club, 207
Diathesis, 39, 173
Disease of civilization, 16, 54
Disposing mind, 143, 175
Disposition, 167
Dix, Dorothy, 7

Domestic trouble, 17
Double personality, 151
Doubting mania, 179, 203
Dread of dirt, 16
Dreams and nightmare, 126
Drugs, 274
"Drunks," 162
Dying state, 137, 333

Ear, blood tumor of, 166
Eccentricity, 74, 178
Echolalia, 164
Echopraxia, 164
Education, 11, 51, 90
  called in season, 100
  faithfully busy, 108
  ignorance, 97
  man's responsibility, 91
  moral, 102
  of the will, 102
  one-sided development, 106
  three decades of teaching, 109
  yacht and duck, 100
Ego, transformation of, 177, 249
Egypt, ancient, amusements, 125
Emotions, 24, 114, 260, 282
  dead, 268
  disturbance of, 124, 281
Employment, 61, 62, 273
  diversional, 105, 118, 167
Environment, 90
  altruistic principle, 105
  contentment, 95
  home life, 93, 101
  prey to, 92
  recreation, 96
Epilepsy, 74
Epochs, in history of insane, 16
Eruption, cutaneous, 281
Esquirol, 19, 49, 225
Estate, deprive of management, 307
  committee of person and estate, 308
Estate, defects of law in early times, 307
  freedom of the subject, 309
  habitual drunkard, 308
  non compos mentis, 307
  originally two kinds of insanity, 307
  unsoundness of mind, 307
Etiology, 7, 16
Excesses, 17, 61, 75, 160
Exercise, 56, 105, 118, 167, 274
Ex Libris, 159
Exorcism, 4, 113
Eyes, color of, 52

Fabiola, 4
Fallacies, 18
Family traits inherited, 70
Farmers, 18
Fast living, 49
Fatigue, 226, 228
Fear, 24, 36, 249
  brave man, 38
  normal and morbid, 37, 286
  nothing makes afraid, 37
Feelings, 23, 38, 58, 114, 245, 259
  chief component of mind, 260
  fervor of the honey-moon, 269
  gigglers, 263
  hardened in heart, 270
  in agitated depression, 268
  incongruous effects, 265
  in content of mind, its importance, 259
  insane audiences, 265
  James-Lange theory, 261
  laughter from intense cold, 263
  love is blind, 269
  medical calisthenics, 261
  morbid mirth, 262
  peculiarity, 49, 247
  reflex laughter, 262, 263
  ruling passion, 266

Feelings, sardonic laughter, 262
subordinating in training of child, 267
Titchener's contribution, 259
tone of, 24, 37
top of its bent, 270
wide field in mental medicine, 260
Flood-ebb, 281
Flowers and plants, 65, 125
Folie du doute, 179
Footsteps, 208
Fresh air, 52, 240
Friends, Society of, 7

Galen, 19
Gangrene of despair, 119
General paresis, 321
demented, 322
depressed, 322
early signs of, 225
early treatment, 322
galloping, 322
juvenile, 322
moral sense, 226
percentage, 228
spinal, 322
Germ cells, 69
George III. England, 54
Giessen, 268
Gigglers, 263
Gilpin, John, 162
Glued to spot, 23
Good practice, 115
Grief, 265, 282
Grief, dry-eyed, 22
Greetings, 239
Growth, slow-rapid, 129
"Gyrater," 239

Habit, 55, 106, 289
Hair and eyes, color of, 52
Hallucinations, hearing, 63
Happiness, 121
vital principle, 277
largest bounty, 221
Harp, unstrung, 282
Harping, single string, 23
Hematoma, aural, 166
Head injury, 236
Health lift, 130
Heredity, 17, 54, 69, 90, 160, 315, 323
atavism, 73
born after attack, 74, 280
collateral, 73
cross fertilization, 76
degeneration, 72
diagnostic value, 74
disease not directly inherited, 70
double, 73
germ cells, 69
homochronous, 73
homologous, 72
how to avoid it, 69
intemperance, 75
intoxicated parent, 76
marriages, consanguineous, 76
Mendelian laws, 71
morbid, 75
pathologic, 71
physiologic, 69
predisposition, 70
prognosis, 66, 79
psychoses transformed, 72
regressive, 73
related disease, 74
stigmata, 72
treatment, 78
variation, 69
well born, 174
Hippocrates, 3, 19, 55
Historical account of the insane, 3, 273
epochs, 3

Historical account of the insane, middle ages, 4
Hobbyist med., 247
Höffding, 248, 266
Holmes, Oliver Wendell, 99, 218, 278
Homicide, 14
House of Grace, 4
Hunger and cold, endurance, 47
Hypochondriasis, 74
  contagion of, 119
Hysteria, 74, 200, 264
Hypnotic state, 154, 263

Identity, altered, 177, 250
Idiocy, 76
Idiots-Savants, 120
Ill health, 17
Illusions, 15, 59, 178, 231, 254
Imagination, 29
  Archimedes, 33
  beneficial, 33, 43
  connected with feelings, 38
  cultivated, 29
  depressed action, 37
  forms of fear from, 36
  hand-maid of science, 34
  in neurasthenia, 38
  kindergarten, 29
  limited, 29
  passive form, 40
  pianos in heaven, 30
  temperament, tone of feeling, etc., 37
Imitation, 33
Imperative ideas, 179
Impulsion, 165
Inebriety, results of, 161
Inherited disease, 70
  family traits, 70
Insane, class by themselves, 12
  deprive management of estate, 138
Insane, divine agent, 3
  disguised as beggars, 165
  neighbors, 12, 13
  shortcomings, 13
  some questions about, 3
  weep, 21
  writing, 174
Insanity, 249
  age of onset, 65
  belt, 161
  colored race, 16
  contagious, 119, 219
  definitions, 169
  exophthalmic goiter, 321
  foreign in nature, 13
  general survey, 313
  ignorance, 97
  increase, 168
  in war time, 282
  manic-depression, 323
  myxœdematous, 320
  ratio, 17, 159
  sex, 16, 61
  thyroigenous, 319
Insomnia, 47, 329
Instinct of self-preservation, 36
Intemperance, 17, 61, 75, 160
Intoxication, 76
Invention, 33
Involuntary action, 167
Irritability, 166

James, Wm., 33, 83, 106, 153
Janet, 195
Jekyll and Hyde, 156
Johnson, Samuel, Dr., 115, 124, 287
Joy, 24, 265, 282
Jump down, height, 14

Katydid, 15
Kenyon, Lord, 142
King Lear, 165
Kirkbride, 17, 167, 232

Lamp-cask, 164
Lange-James theory, 261
Latency, 173
Laughter, 262
Laughter and tears, 264, 278
Lawless heart, 185
Law, Mendelian, 71
  ancient rule of, 136
  of average, 79
Lead, molten, 163
Lettsom, 117
Light vibration, 240
Liver-spleen, 55
Love, 24, 269, 282
  is blind, 37, 247
Lucid interval, 301

Manic-depressive insanity, 323
Marriage, 48, 58
  consanguineous, 76
Maturity, 129
Mendelian law, 71
Mens sana in corpore sano, 235
Mental breakdown, 199
  anxiety and worry, 95, 99
  bodily frailty, 104
  deficiency, 11, 75
  favored child, 109
  habits, 106
  hygiene, 128
  instability, 10, 48
  integrity, 249
  nursing, 64, 121, 229, 283
  shock, 22
  strong and symmetrical, 108
  tests, 176
  training, 103, 104, 289
  traits, 284
  work and exercise, 105
Mercier, 265
Mind, care of, 83
  cultivated, 51, 100
Mind, disposing, 143, 175
  disposing, 143, 175
  kinks of, 179
  overtaxing, 160, 281
  storehouse, 51
  sane and insane, 12, 249
  torture of, 59, 288
  unsoundness of, 307
Mitchell, Weir, Dr., 172
Molten lead, 163
Mood, 167
Moon, 18
  light, 20
  Rush theory, 20
  struck, 19
Moral sense, in paresis, 226
Motor type, 14, 83
Mortality rate, 239, 276
Much ado about nothing, 37
Music, 49, 120, 172, 260

Napoleon, 285
  sleep, 195
Negroes, 16
Neurasthenic states, 38
Nightmare and dreams, 126
Newton, 34
Non-restraint, 5, 60
Note-book of an alienist, 225
Nurse, mental, 56, 64, 229
Nurses' training school, 55, 121

Obsessions, 179, 277
Occupation, 16, 62, 167, 273
  absence, 61
  in ancient Egypt, 125
  predisposing, 57
O'Flaherty, 241
Old age, 231, 233
Onset, slow and rapid, 66
Organic sensations, 163, 178
Orientation, 55, 255
O'Shea, Prof., 85

Overtaxing of mind, 160

Pain, physical, 280, 288
Panic, effects of, 23, 249, 265
Paranoia, 325
Paranoiac, 66
Parent intoxicated, 76
Paresis, see General Paresis.
Passion, 266
  ruling, strong in death, 267
Pawn-shop, 48
Pennsylvania Hospital, 7
Perdu, 214
Personality, double, 151
Phantasy, 183, 251
Physicians, do they become hardened, 270
Phobias, 180
Phonisms, 175
Photisms, 175
Pickwick, 210
Pinel, Philip, 5
Plow, yoked to, 65
Popular fallacies, 18
Possession, evil, 4, 12
Power, wind-water, 278
Predisposition, 70
Preperception, 15
Prophylaxis, 159
Prognosis, 54, 62, 64, 66, 79, 241, 275, 280, 283
Pronge, Silas, 151
Psychasthenia, 318
Psychiatrist, viewpoint of, 273
Psychotherapeutic methods, 279
Puberty, 166
Punning, 207

Quakers, 6, 7
Quaker City, 220
  meeting, 202
Queen of Holland, 184
Quarrels, psychology of, 219

Race, 16
Ratio of insanity, 17, 159
Ray, Dr., 233
Recreation, 56, 96, 105, 118, 167
Recovery, 274
  slow, 64
Reflex action, 167
Regain mind before death, 18, 24
Religion, 231, 234
  a cause, 7
Restraint, 5, 60
Reverie, automatic, 202
Rheumatism, 281
Rhythmic sounds, 240
Rush, Dr., 20, 58, 60

Sane and insane mind, 12, 249
Salpêtrière Hospital, 5
Savages, 160, 187
Savants-idiots, 120
Scrupulousness, morbid, 16
Self-control, 289
  preservation, 36, 248
Sensations, 32, 115, 198, 240, 260
  organic, 163, 178
Sense, possessed by the insane, 20
Sensory centers and nerves, 115
  motor mechanism, 163
Sex, 16
  insane, 58, 316
Signs, early, paresis, 225
  favorable, 28, 62, 233, 283
  of approaching death, 335
Sleep, 79, 85
  impairment, 47, 237, 241, 329
  light, 20
Shed tears, 18, 21
Short life, 121
Sketches, 113
Slavery, abolition of, 16
Sound mind in sound body, 235
Sounds, rhythmic, 240
Soul lost, 10

Speech, paretic, 288
internal, 14
peculiarities of, 54
Spencer, Herbert, 260
Spleen, 55
State of mind at death, 137
Stigmata, physical, 50, 72
Sterilization, 159
Study of dying state, 333
St. Suaire, 119
Suggestibility, 164
Suicide, 14
Sully, 36
Swedenborgians, 9
Symbolism, 187
Symptoms, abstinence, 290
Synonyms, 283
Syphilis, 322

Tabletalk of an alienist, 47
Tact, 122
Talk of ills, 115
Tears, 18, 21
Tears and laughter, 264, 278
Teeth crunching sound, 212
Telephone system, 86
Temperament, 106, 173
Terms, derisive, 280
Testamentary capacity, 137, 143, 175
character of the act, 297
delusion, such can be held by sane person, 301
in handwriting of testator, 295
in old age, 298
no minimum fixed capacity, 295
old age not to be made defenseless, 299
made in intervals of fever delirium, 303
unless act is product of delusion, 300
Titchener, 259
Thought, train of, 278
Thurnan, 19, 275
Thyroid gland, 319
Trained nurse, 56, 64, 229
Training school, nurses, 55, 121
physical and mental, 108
Travel, 51, 60
Treatment, advancement of, 273, 329
early and late, 234
fresh air, 52, 329
Tree, pear, 107
Truth perverted, 10, 39
Tuberculosis, 25, 132, 173
Tub, under a, 124
Tuke, William, 6
Twins and triplets, 70

Under dog, 13
Undue ratio, insanity, 159
Unjust wills, 138, 141
Unsolved problem, 64
Unstable constitution, 11, 75
Urquhart, 21

Valetudinarians, 287
Valhalla, 30
Valid will, 140
Variation, 69
Vice of organization, 75
Vicissitudes, 172
Visualizers, 218
Volition, complex, 47
Volumnia, 103

War, fortune of, 128
Washing hands, 16
Weep, 54, 235
Weight bodily, 234
brain, 60
Well-born, 174
Wheel of fire, 163
barrow, 175

Whip-poor-will, 15
Will power, 102, 174, 193, 289
  coercion, 295
  disposing mind, 296
  formerly by a delusion, 299
  free agency destroyed, 295
  intoxication, 304
  invalidate, 295
  lucid interval, 301
  power to make, 143, 175
  undue influence or fraud, 295
  unjust, 138, 141
Will power, valid, 135, 296
  void of natural justice, 295
Willis, 284
Wills in extremis, 137
Window shutters, 21
Worry, 9, 95, 99
Writing insane, 174
Wundt, 197

Yoked to plow, 65
York retreat, 6

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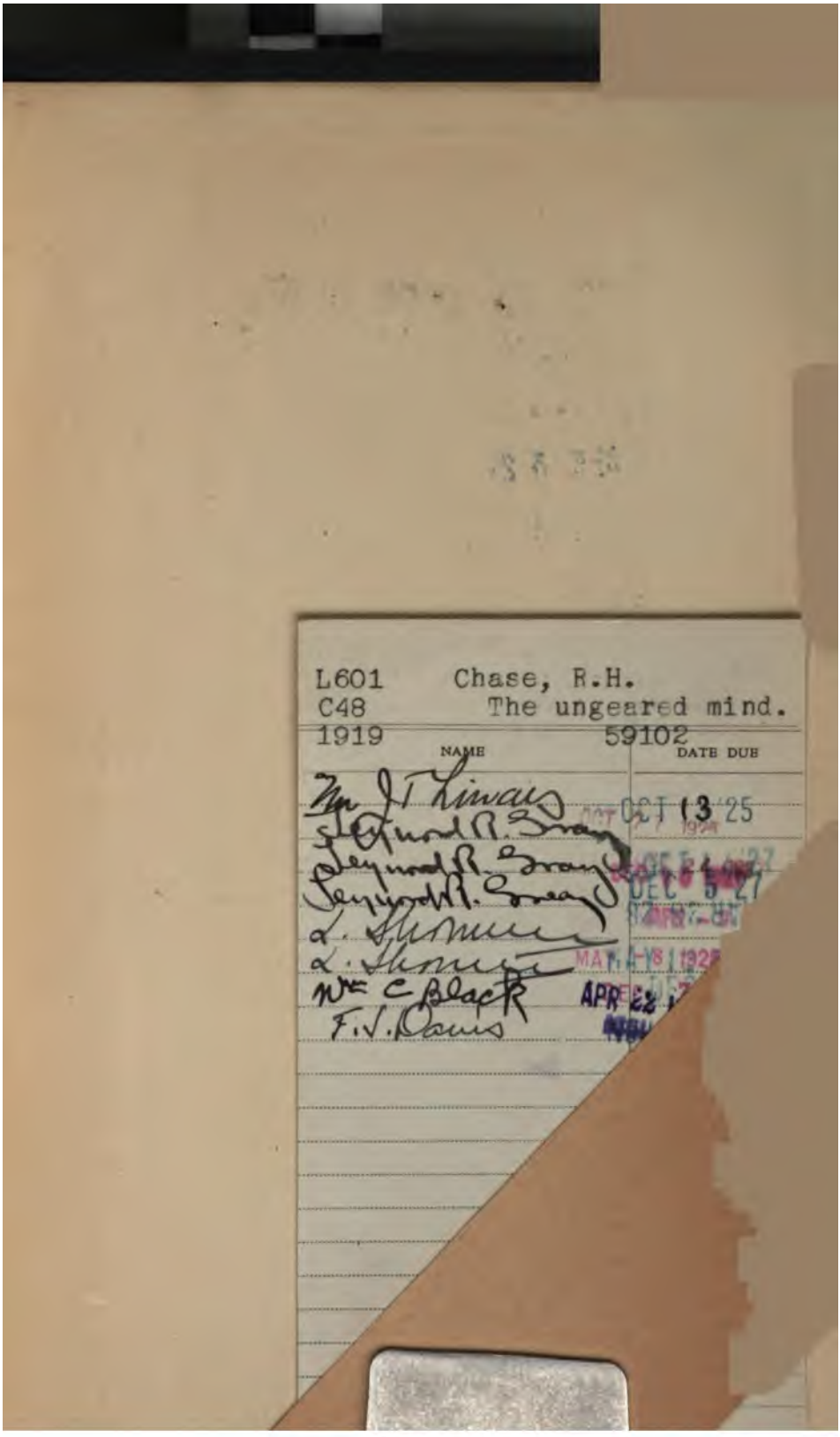

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